

FILE 'CAPLUS, WPIDS, BIOSIS' ENTERED AT 16:40:54 ON 17 OCT 2003  
L1 10835 S ANOLYTE# OR ((ANOLYTIC? OR ANOD?) (3A) WATER)  
L2 106 S L1 (100A) GEL?

FILE 'STNGUIDE' ENTERED AT 16:44:25 ON 17 OCT 2003

FILE 'CAPLUS, WPIDS, BIOSIS' ENTERED AT 16:49:35 ON 17 OCT 2003  
L3 3150 S (ELECTROLY? (5A) WATER) (100A) (DISINFECT? OR STERIL? OR ANTI  
L4 2662 DUP REM L3 (488 DUPLICATES REMOVED)  
L5 332 S L4 AND GEL?  
L6 325 S L5 NOT (POLYACRYLAMID? (3A) GEL)  
L7 1131 S ((ELECTROLYSIS OR ELECTROLYTIC?) (5A) WATER) (100A) (DININFEC  
L8 1009 DUP REM L7 (122 DUPLICATES REMOVED)  
L9 92 S (L8 AND GEL?) NOT (POLYACRYLAMID? (3A) GEL)  
L10 85 S L9 NOT L2

FILE 'STNGUIDE' ENTERED AT 17:06:53 ON 17 OCT 2003

FILE 'CAPLUS, WPIDS, BIOSIS' ENTERED AT 17:15:59 ON 17 OCT 2003  
L11 0 S ANODIC WATER (100A) GEL#  
L12 917 S L8 NOT L9

FILE 'STNGUIDE' ENTERED AT 17:21:10 ON 17 OCT 2003

FILE 'CAPLUS, WPIDS, BIOSIS' ENTERED AT 17:59:16 ON 17 OCT 2003

=> d que l2; d que l10; d que l12  
L1 10835 SEA ANOLYTE# OR ((ANOLYTIC? OR ANOD?) (3A) WATER)  
L2 106 SEA L1 (100A) GEL?

L1 10835 SEA ANOLYTE# OR ((ANOLYTIC? OR ANOD?) (3A) WATER)  
L2 106 SEA L1 (100A) GEL?  
L7 1131 SEA ((ELECTROLYSIS OR ELECTROLYTIC?) (5A) WATER) (100A)  
(DININFECT? OR STERIL? OR ANTIMICROBIAL? OR BACTERICID? OR  
WOUND# OR THERAP? OR GEL? OR TOPICAL? OR SKIN# OR ULCER? OR  
ANTISEPTIC?)  
L8 1009 DUP REM L7 (122 DUPLICATES REMOVED)  
L9 92 SEA (L8 AND GEL?) NOT (POLYACRYLAMID? (3A) GEL)  
L10 85 SEA L9 NOT L2

L7 1131 SEA ((ELECTROLYSIS OR ELECTROLYTIC?) (5A) WATER) (100A)  
(DININFECT? OR STERIL? OR ANTIMICROBIAL? OR BACTERICID? OR  
WOUND# OR THERAP? OR GEL? OR TOPICAL? OR SKIN# OR ULCER? OR  
ANTISEPTIC?)  
L8 1009 DUP REM L7 (122 DUPLICATES REMOVED)  
L9 92 SEA (L8 AND GEL?) NOT (POLYACRYLAMID? (3A) GEL)  
L12 917 SEA L8 NOT L9

=>

L2, L10, L12 → all Reviewed online  
↓  
nothing good here  
only the most relevant hits printed on next pages.

=> d 26 47 61 64 110 146 152 157 170 171 178 181 237 257 273 320 321 322 357 357  
373 386 500 520 529 531 556 788 789 908 bib ab kwic

L12 ANSWER 26 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:460243 CAPLUS

DN 139:41361

TI Bath water purification apparatus using hypochlorous acid-containing water for disinfection

IN Takeuchi, Hirokazu; Masuda, Kenji; Ichikawa, Masaya

PA Denso Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003170168	A2	20030617	JP 2001-372934	20011206
PRAI	JP 2001-372934		20011206		

AB The bath water purifn. app. comprises (1) an electrolytic water prodn. means for producing hypochlorous acid-contg. water by electrolyzing salt water and (2) a bath water purifn. means provided with a means for cleaning bath water and a means for mixing hydrochlorous acid-contg. water to the bath water for disinfection and circulating the obtained water back to a bathtub. The electrolytic water prodn. means comprises a control means for producing water contg. hypochlorous acid in a prescribed concn. by controlling supply of salt water to the electrolytic water prodn. means dividingly to change the concn. of the hydrochlorous acid-contg. water step by step depending on the elec. current. Bath water can be properly disinfected.

IT Sterilization and Disinfection

(of bath water; bath water purifn. app. for bath water disinfection by hypochlorite-contg. water produced by **electrolysis**)

L12 ANSWER 47 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:188030 CAPLUS

DN 138:209880

TI Method and apparatus for sterilization of bathtub water by adding acidic-ionized water obtained by **electrolysis** of bathtub water containing sodium chloride

IN Kuwahara, Katsumi; Wakikawa, Junji

PA Saiensu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003071465	A2	20030311	JP 2001-262278	20010830
PRAI	JP 2001-262278		20010830		

AB In using bathtub water for the long term with circulating and purifying by filtration, the water is sterilized by adding acidic-ionized water which is obtained by **electrolysis** of a part of the bathtub water contg. sodium chloride; wherein the addn. is so carried out as to adjust the oxidn.-redn. potential (ORP) 300-2000 mV and the pH 2.0-5.0 every day or every week.

TI Method and apparatus for sterilization of bathtub water by adding acidic-ionized water obtained by **electrolysis** of bathtub water containing sodium chloride

AB In using bathtub water for the long term with circulating and purifying by filtration, the water is sterilized by adding acidic-ionized water which is obtained by **electrolysis** of a part of the

bathtub water contg. sodium chloride; wherein the addn. is so carried out as to adjust the oxidn.-redn. potential (ORP) 300-2000 mV and the pH 2.0-5.0 every day or every week.

ST bathtub water sterilization sodium chloride  
electrolysis; acidic ionized water addn bathtub water sterilization

IT Water purification  
(app., sterilization; method and app. for sterilization of bathtub water by adding acidic-ionized water obtained by electrolysis of bathtub water contg. sodium chloride)

IT Water purification  
(electrolysis; method and app. for sterilization of bathtub water by adding acidic-ionized water obtained by electrolysis of bathtub water contg. sodium chloride)

IT Electrolytic cells  
(method and app. for sterilization of bathtub water by adding acidic-ionized water obtained by electrolysis of bathtub water contg. sodium chloride)

IT Water purification  
(sterilization and disinfection; method and app. for sterilization of bathtub water by adding acidic-ionized water obtained by electrolysis of bathtub water contg. sodium chloride)

IT 7647-14-5, Sodium chloride, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
(method and app. for sterilization of bathtub water by adding acidic-ionized water obtained by electrolysis of bathtub water contg. sodium chloride)

L12 ANSWER 61 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:36415 CAPLUS

DN 138:95692

TI Isotonic alkaline electrolytic water for washing  
wounds

IN Kamiya, Yoshinori; Miyaji, Masato

PA Hoshizaki Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003012525	A2	20030115	JP 2001-200891	20010702
PRAI	JP 2001-200891		20010702		

AB This invention relates to wound irrigation solns. comprising strong alk. electrolytic water, nutrients for promoting cell multiplications, and salts to provide isotonic condition. Also, app. for producing electrolytic water is provided. The solns. minimized the damage in the affected area.

TI Isotonic alkaline electrolytic water for washing  
wounds

AB This invention relates to wound irrigation solns. comprising strong alk. electrolytic water, nutrients for promoting cell multiplications, and salts to provide isotonic condition. Also, app. for producing electrolytic water is provided. The solns. minimized the damage in the affected area.

ST wound cleansing isotonic alk electrolytic  
water

IT Waters

(electrolytic; isotonic alk. electrolytic  
water for cleansing wounds)

IT **Wound**  
(isotonic alk. **electrolytic water** for cleansing  
wounds)

IT **Solutions**  
(isotonic; isotonic alk. **electrolytic water** for  
cleansing **wounds**)

IT 127-17-3, Pyruvic acid, biological studies 7447-40-7, Potassium  
chloride, biological studies 7558-79-4, Disodium hydrogen phosphate  
7647-14-5, Sodium chloride, biological studies 7778-77-0, Potassium  
dihydrogen phosphate  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(isotonic alk. **electrolytic water** for cleansing  
wounds)

L12 ANSWER 64 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:29674 CAPLUS

DN 138:78097

TI Bath water purification device with electrolysis tank for producing  
hypochlorous acid

IN Okumura, Hiroyuki; Ichikawa, Masaya; Yonekura, Shoji

PA Denso Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003010858	A2	20030114	JP 2001-195369	20010627
PRAI	JP 2001-195369		20010627		

AB The device includes a circulation pipeline for circulation of the bathtub  
water through a filter, an electrolysis tank arranged upstream the filter  
for producing hypochlorous acid, and an UV lamp arranged downstream the  
filter for decompn. of the hypochlorous acid after filtration, to supply  
water to the bathtub without uncomfortable odors.

IT Water purification

(sterilization and disinfection; bath **water** purifn.  
device with **electrolysis** tank for producing hypochlorous  
acid)

L12 ANSWER 110 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:378534 CAPLUS

DN 136:363816

TI Antibacterial sodium chloride solutions from **electrolysis** of  
deepsea **water** for **topical** uses

IN Arai, Seiichi; Ikemoto, Takeshi; Fukubayashi, Tomoko

PA Kanebo, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002145787	A2	20020522	JP 2000-335403	20001102
PRAI	JP 2000-335403		20001102		

AB Sodium chloride solns. prep'd. from primary and secondary  
**electrolysis** of deep sea **water** contg. alkali water from  
anode mixed with acidic water from cathode are claimed as antibacterials  
for **topical** uses.

TI Antibacterial sodium chloride solutions from **electrolysis** of  
deepsea **water** for **topical** uses

AB Sodium chloride solns. prep'd. from primary and secondary  
**electrolysis** of deep sea **water** contg. alkali water from

anode mixed with acidic water from cathode are claimed as antibacterials for topical uses.

IT Antibacterial agents  
Electrolysis  
Seawater  
(antibacterial sodium chloride solns. from electrolysis of deepsea water for topical uses)

IT Drug delivery systems  
(topical; antibacterial sodium chloride solns. from electrolysis of deepsea water for topical uses)

IT 7732-18-5, Water, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(alkali and acidic; antibacterial sodium chloride solns. from electrolysis of deepsea water for topical uses)

IT 7647-14-5, Sodium chloride, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antibacterial sodium chloride solns. from electrolysis of deepsea water for topical uses)

L12 ANSWER 146 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:792097 CAPLUS

DN 135:348663

TI Bath water purification device.

IN Yamamoto, Kazuhiro; Kawamura, Tamotsu; Hirota, Tatsuya; Fujikawa, Kiyokazu

PA Sanyo Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001304678	A2	20011031	JP 2000-115331	20000417
PRAI	JP 2000-115331		20000417		

AB A new simple bathtub water purifn. app is provided, which is lightwt. and easy to carry, and does not require large space for installing in the edge of the bathtub. The water purifn. app., both are immersed in the bathtub, consists mainly of a electrolytic cell and a circulation pump, which supplies contaminated bathtub water to the electrolytic cell for electrochem. purifn. After the sterilizing treatment with the electrochem. reaction in the electrolytic cell the treated water flows back into the bathtub. Thus, simply by turning on the power source to run the pump and the electrolytic cell in the bathtub the bathtub water can be purified.

AB A new simple bathtub water purifn. app is provided, which is lightwt. and easy to carry, and does not require large space for installing in the edge of the bathtub. The water purifn. app., both are immersed in the bathtub, consists mainly of a electrolytic cell and a circulation pump, which supplies contaminated bathtub water to the electrolytic cell for electrochem. purifn. After the sterilizing treatment with the electrochem. reaction in the electrolytic cell the treated water flows back into the bathtub. Thus, simply by turning on the power source to run the pump and the electrolytic cell in the bathtub the bathtub water can be purified.

L12 ANSWER 152 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:734000 CAPLUS

DN 135:277686

TI Apparatus for producing electrolytic water for disinfection and sterilization

IN Saruhashi, Makoto; Hoshino, Masaaki; Sasaki, Masatomi

PA Terumo Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.-	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001276826	A2	20011009	JP 2000-99706	20000331
PRAI	JP 2000-99706		20000331		

AB The app. includes a section for storage of water to be electrolyzed contg. 0.2-1 wt./vol.% chloride, an electrolysis section having a cathode and an anode with 2-20 cm<sup>2</sup> effective surface area, resp., for electrolysis of the water at water velocity 0.5-7 mL/s and 2.2-12 V voltage charge, a nozzle for discharging the produced electrolytic water, and a means for elec. charging the electrolysis section.  
TI Apparatus for producing **electrolytic water** for disinfection and **sterilization**  
ST **electrolytic water electrolysis** device  
disinfection **sterilization**  
IT Anodes  
Cathodes  
    **Sterilization and Disinfection**  
    (app. for producing **electrolytic water** for  
    disinfection and **sterilization**)  
IT Chlorides, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
    (app. for producing **electrolytic water** for  
    disinfection and **sterilization**)  
IT Water purification  
    (electrolysis; app. for producing **electrolytic water** for  
    disinfection and **sterilization**)  
IT 7732-18-5, Water, processes  
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)  
    (electrolysis; app. for producing **electrolytic water** for  
    disinfection and **sterilization**)

L12 ANSWER 157 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2001:666788 CAPLUS

DN 135:277422

TI Functional waters in medical field. Pursuit of generalizing bactericidal cleaning methods focusing on strong-acidic **electrolytic water**

AU Iwasawa, Atsuo; Nakamura, Yoshiko  
CS Fujigaoka Hosp., Showa Univ., Japan  
SO Kurin Tekunoroji (2001), 11(9), 57-61  
CODEN: KTEKER; ISSN: 0917-1819

PB Nippon Kogyo Shuppan  
DT Journal; General Review

LA Japanese

AB A review with refs. Strong-acidic electrolytic water as functional water, cleaning and disinfection of endoscopes and dialyzers with the water, and concept of disinfection, are described.

TI Functional waters in medical field. Pursuit of generalizing bactericidal cleaning methods focusing on strong-acidic **electrolytic water**

ST review medical field functional water disinfection; **bactericidal** cleaning strong acidic **electrolytic water** review

IT Antibacterial agents

Cleaning

Electrolysis

**Sterilization and Disinfection**

(bactericidal cleaning methods focusing on strong-acidic electrolytic water as functional water in medical field)

IT Dialyzers  
Endoscopes  
Medical goods  
(disinfection of; bactericidal cleaning methods focusing on strong-acidic electrolytic water as functional water in medical field)

IT 7732-18-5, Water, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(bactericidal cleaning methods focusing on strong-acidic electrolytic water as functional water in medical field)

L12 ANSWER 170 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:459708 CAPLUS

DN 135:50796

TI Method for producing electrolytic purification water for washing and disinfection of skin

IN Kamitani, Yoshinori

PA Hoshizaki Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001170644	A2	20010626	JP 2000-53658	20000229
PRAI JP 1999-288530	A	19991008		

AB The method is carried out by electrolysis of dild. salt water to produce electrolytic water having 0.60-0.90 wt.% salt concn., to be used for washing and disinfection of skin with extreme low hemolysis and cell damage.

TI Method for producing electrolytic purification water for washing and disinfection of skin

AB The method is carried out by electrolysis of dild. salt water to produce electrolytic water having 0.60-0.90 wt.% salt concn., to be used for washing and disinfection of skin with extreme low hemolysis and cell damage.

ST electrolytic purifn water washing disinfection skin

IT Water purification  
(electrolysis; method for producing electrolytic purifn. water for washing and disinfection of skin)

IT Hemolysis

Skin, disease

Sterilization and Disinfection

Washing

(method for producing electrolytic purifn. water for washing and disinfection of skin)

L12 ANSWER 171 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:459647 CAPLUS

DN 135:66307

TI Disinfection and drying apparatus spraying acidic water to human skin

IN Arita, Kinya; Kawakita, Kazunori; Kono, Hiroshi; Fukunaga, Takashi;

Hagiwara, Takato

PA Toto Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001170138	A2	20010626	JP 1999-362526	19991221
PRAI	JP 1999-362526		19991221		

AB Title app., useful for bed-ridden patients, elderly people, etc., has means of supplying air, heating the air, radiating heat (e.g. IR), manufg. acidic water, and spraying the water. After spraying acidic **water**, which is manufd. by **electrolysis** of aq. NaCl, to the **skin**, hot air and radiant heat are applied to dry the **skin**

AB Title app., useful for bed-ridden patients, elderly people, etc., has means of supplying air, heating the air, radiating heat (e.g. IR), manufg. acidic water, and spraying the water. After spraying acidic **water**, which is manufd. by **electrolysis** of aq. NaCl, to the **skin**, hot air and radiant heat are applied to dry the **skin**

L12 ANSWER 178 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:371553 CAPLUS

DN 134:371792

TI Wound tissue cell proliferation promoter containing active oxygen-containing water

IN Yahagi, Naoki; Sumita, Nobuo

PA Coherent Technology Y. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001139477	A2	20010522	JP 1999-326993	19991117
	EP 1103264	A2	20010530	EP 2000-124968	20001116
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002160053	A1	20021031	US 2002-146140	20020516

PRAI JP 1999-326993 A 19991117

US 2000-714826 A2 20001117

AB The invention relates to a tissue cell proliferation promoter for use for treatment of **wound**, wherein the tissue cell proliferation promoter contains active oxygen-contg. **water** esp. obtained by **electrolysis** of halogen-contg. soln.

AB The invention relates to a tissue cell proliferation promoter for use for treatment of **wound**, wherein the tissue cell proliferation promoter contains active oxygen-contg. **water** esp. obtained by **electrolysis** of halogen-contg. soln.

L12 ANSWER 181 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:306878 CAPLUS

DN 134:357445

TI Bactericidal action of strongly acidic **electrolytic** water. Hypochlorous acid produced by solubilization of generated chlorine is the main body of the effect

AU Iwasawa, Atsuo; Nakamura, Yoshiko

CS Fujigaoka Hosp., Showa Univ., Japan

SO Kagaku to Seibutsu (2001), 39(4), 218-220

CODEN: KASEAA; ISSN: 0453-073X

PB Gakkai Shuppan Senta

DT Journal; General Review

LA Japanese

AB A review with 3 refs., on characterization and bactericidal activities of

strongly acidic electrolyzed water used for disinfection. Role of hypochlorous acid, produced by solubilization of generated chlorine, as a major bactericidal factor in strongly acidic electrolyzed water is also discussed.

TI Bactericidal action of strongly acidic **electrolytic water**. Hypochlorous acid produced by solubilization of generated chlorine is the main body of the effect

L12 ANSWER 237 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:565392 CAPLUS

DN 131:189448

TI Hand sterilization apparatus spraying electrolyzed water mist

IN Tanaka, Yoshinori; Saihara, Yasuhiro

PA Matsushita Electric Works, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11241381	A2	19990907	JP 1998-41571	19980224

PRAI JP 1998-41571 19980224

AB The app. comprises (1) a sterilization chamber, (2) a sensor detecting a part of human body, e.g. hand, inserted in the chamber, (3) a sprayer of electrolyzed water mixts with particle size 10-500 .mu.m, and (4) a hot-air dryer. The app. may have a heater to heat the electrolyzed water at 30-50.degree.. The hot-air dryer may addnl. have a sterilization unit by UV, Cl, or ozone. The water mist can reach inside the wrinkle of skin and pore of skin.

IT 7732-18-5, Water, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(electrolysis; hand **sterilization** app. having sprayer of size-controlled electrolyzed water mist and hot-air dryer)

L12 ANSWER 257 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:199567 CAPLUS

DN 130:242367

TI Method for sterilization with diluted electrolyzed acidic solution

IN Sato, Fumitake; Yanagihara, Noriyuki; Naito, Tatsuya

PA Mizu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11076383	A2	19990323	JP 1997-264977	19970911

PRAI JP 1997-264977 19970911

AB The invention provides a low cost and simplified method for sterilizing hands, medical goods, clothes, dishes, etc., with an 10-40 times dild. electrolyzed acidic soln., wherein the original electrolyzed acidic soln. has pH of .ltoreq. 2.5 and an ORP (oxidn.-redn. potential) of .gtoreq. 110 mV. A 0.1 % NaCl soln. (12 L) was electrolyzed at 20 A for 1 h, and dild. 20 times with water after adding 0.3 % HCl. The soln (pH = 2.96, ORP = 1144 mV) showed sterilizing effect against black-koji mold and bacterial spores in .ltoreq. 30 s.

IT 7732-18-5, Water, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(electrolysis; dild. acidic electrolyzed water for sterilization)

L12 ANSWER 273 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1998:650644 CAPLUS  
DN 129:265497  
TI Sanitary apparatus for washing private parts  
IN Ando, Shigeru; Haraga, Hisato; Imasaka, Takao; Tsukita, Yuji; Nishiyama, Shuji; Takeshita, Akemi; Takamatsu, Hiroshi  
PA Toto Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10263045	A2	19981006	JP 1997-77757	19970328
PRAI	JP 1997-77757		19970328		

AB This app. jets out strongly alk. water at pH 10-12. The strongly alk. water is produced by electrolysis of tap water mixed with NaCl. Escherichia coli is almost completely removed from the periphery of an anus after excretion by washing by the app.

IT Sterilization and Disinfection

(by strongly alk. water; app. for washing private parts with strongly alk. water produced by electrolysis)

L12 ANSWER 320 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:396756 CAPLUS

DN 127:70661

TI Effect of functional water on infectious skin ulceration

AU Inagawa, Kiichi; Moriguchi, Takahiko

CS Keisei Gekagaku Kyoshitsu, Kawasaki Ika Daigaku, Kurashiki, 701-01, Japan

SO Igaku no Ayumi (1997), 181(4), 266-267

CODEN: IGAYAY; ISSN: 0039-2359

PB Ishiyaku

DT Journal; General Review

LA Japanese

AB A review with 3 refs., on treatment of infectious skin ulceration with strong acidic electrolysis soln. (functional water).

AB A review with 3 refs., on treatment of infectious skin ulceration with strong acidic electrolysis soln. (functional water).

L12 ANSWER 321 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:390420 CAPLUS

DN 127:39419

TI Solutions for electrolysis for production of hypochlorous acid-sterilized water

IN Okazaki, Tatsuo

PA Okazaki, Tatsuo, Japan; Okazaki, Yoshiya

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09108681	A2	19970428	JP 1995-296282	19951019
PRAI	JP 1995-296282		19951019		

AB The solns. contain chlorides for prodn. of HClO-sterilized water and phosphate salts and/or polyphosphate salts as pH regulators. The solns. are easily adjusted to pH 6-7.5 by adding the pH regulators and are used for prodn. of HClO-contg. sterilized water by nondiaphragm electrolysis.

AB The solns. contain chlorides for prodn. of HClO-sterilized water and phosphate salts and/or polyphosphate salts as pH regulators. The solns.

are easily adjusted to pH 6-7.5 by adding the pH regulators and are used for prodn. of HClO-contg. **sterilized water** by nondiaphragm **electrolysis**.

ST **hypochlorous acid sterilized water**  
**electrolysis phosphate**; chloride nondiaphragm electrolysis water disinfection polyphosphate

IT **Water purification**  
(**electrolysis**; solns. contg. chlorides and (poly)phosphate pH regulators for nondiaphragm electrolysis for prodn. of HClO-contg. **sterilized water**)

L12 ANSWER 322 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1997:317555 CAPLUS

DN 126:297404

TI Apparatus for producing acidic water with pH control suitable for care of skin disease

IN Shibuya, Masayuki; Sato, Shigeaki; Deguchi, Tomoaki

PA Shibuya Masayuki, Japan; Kurita Water Ind Ltd

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09057268	A2	19970304	JP 1995-211688	19950821
PRAI	JP 1995-211688		19950821		

AB The app. includes an **electrolysis** tank for producing acidic **water**, a sensor for detecting extent of **skin disease**, and a means for control of pH of the produced water based on the detecting value from the sensor.

AB The app. includes an **electrolysis** tank for producing acidic **water**, a sensor for detecting extent of **skin disease**, and a means for control of pH of the produced water based on the detecting value from the sensor.

L12 ANSWER 357 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:31750 CAPLUS

DN 124:66697

TI Compositions containing acidic or alkaline **electrolysis** **water** and thickening agents as **bactericides** and for cosmetic use

IN Yoshio, Takashi; Sekiguchi, Tooru; Arai, Kazuyoshi; Shudo, Tatsuya; Oohayashi, Mitsue

PA Mizu Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07277994	A2	19951024	JP 1994-97869	19940413
PRAI	JP 1994-97869		19940413		

AB Comps. contg. acidic or alk. **electrolysis** **water** and thickening agents (e.g. hydroxypropyl cellulose M) are useful as **bactericides** for e.g. wound treatment after surgery. The comps. also showed cosmetic effects such as skin-tightening activity.

TI Compositions containing acidic or alkaline **electrolysis** **water** and thickening agents as **bactericides** and for cosmetic use

AB Comps. contg. acidic or alk. **electrolysis** **water** and thickening agents (e.g. hydroxypropyl cellulose M) are useful as **bactericides** for e.g. wound treatment after surgery.

IT The compns. also showed cosmetic effects such as skin-tightening activity.

IT **Bactericides, Disinfectants, and Antiseptics**

Cosmetics

Thickening agents

**Wound healing promoters**

    (compns. contg. acidic or alk. **electrolysis water**  
    and thickening agents as **bactericides** and for cosmetic use)

IT 7732-18-5, **Water**, biological studies

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

    (acidic or alk. **electrolysis**; compns. contg. acidic or alk.  
    **electrolysis water** and thickening agents as  
    **bactericides** and for cosmetic use)

IT 9004-64-2, **Hydroxypropyl cellulose**

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

    (compns. contg. acidic or alk. **electrolysis water**  
    and thickening agents as **bactericides** and for cosmetic use)

L12 ANSWER 357 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:31750 CAPLUS

DN 124:66697

TI Compositions containing acidic or alkaline **electrolysis**  
**water** and thickening agents as **bactericides** and for  
cosmetic use

IN Yoshio, Takashi; Sekiguchi, Tooru; Arai, Kazuyoshi; Shudo, Tatsuya;  
Oohayashi, Mitsue

PA Mizu Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07277994	A2	19951024	JP 1994-97869	19940413
PRAI	JP 1994-97869		19940413		

AB Compns. contg. acidic or alk. **electrolysis water** and  
thickening agents (e.g. hydroxypropyl cellulose M) are useful as  
**bactericides** for e.g. wound treatment after surgery.

The compns. also showed cosmetic effects such as skin-tightening activity.

TI Compositions containing acidic or alkaline **electrolysis**  
**water** and thickening agents as **bactericides** and for  
cosmetic use

AB Compns. contg. acidic or alk. **electrolysis water** and  
thickening agents (e.g. hydroxypropyl cellulose M) are useful as  
**bactericides** for e.g. wound treatment after surgery.

The compns. also showed cosmetic effects such as skin-tightening activity.

IT **Bactericides, Disinfectants, and Antiseptics**

Cosmetics

Thickening agents

**Wound healing promoters**

    (compns. contg. acidic or alk. **electrolysis water**  
    and thickening agents as **bactericides** and for cosmetic use)

IT 7732-18-5, **Water**, biological studies

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

    (acidic or alk. **electrolysis**; compns. contg. acidic or alk.  
    **electrolysis water** and thickening agents as  
    **bactericides** and for cosmetic use)

IT 9004-64-2, **Hydroxypropyl cellulose**

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

    (compns. contg. acidic or alk. **electrolysis water**

and thickening agents as bactericides and for cosmetic use)

L12 ANSWER 373 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1994:517230 CAPLUS

DN 121:117230

TI Apparatus for washing skin with acidic-ion water

IN Nakane, Shinichi

PA Matsushita Electric Ind Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 06114374 A2 19940426 JP 1992-263325 19921001

PRAI JP 1992-263325 19921001

AB The app. includes a section for supplying original water, an electrolysis tank for producing ionized waters (alk.-ion water and acidic-ion water) by charging d.c. on electrodes, a means for supplying produced acidic-ion water as washing water via a nozzle. The pH of acidic-ion water is controllable by charging voltage.

ST electrolysis acidic water skin washing

IT Water purification

(app. for prodn. of acidic-ion water by electrolysis  
for skin washing)

L12 ANSWER 386 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1986:135849 CAPLUS

DN 104:135849

TI Lotions for hair treatment and for prevention of acne and skin roughness

IN Suzuki, Yoko

PA Japan

SO Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 60260507 A2 19851223 JP 1984-117338 19840607

PRAI JP 1984-117338 19840607

AB Acidic water, obtained by electrolysis of purified tap water, with addn. of a small amt. of Ge is a lotion for hair treatment as well as for the prevention of acne and skin roughness. Thus, tap water was treated with active C for the removal of unpleasant odor, subjected to microfiltration for the removal of impurities, and subjected to electrolysis to give alk. water and acidic water. The acidic water (25 L) and Ge powder (8 g) were mixed to obtain a lotion.

AB Acidic water, obtained by electrolysis of purified tap water, with addn. of a small amt. of Ge is a lotion for hair treatment as well as for the prevention of acne and skin roughness. Thus, tap water was treated with active C for the removal of unpleasant odor, subjected to microfiltration for the removal of impurities, and subjected to electrolysis to give alk. water and acidic water. The acidic water (25 L) and Ge powder (8 g) were mixed to obtain a lotion.

L12 ANSWER 500 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

AN 2002-125770 [17] WPIDS

DNN N2002-094368 DNC C2002-038887

TI Physiological saline with germicidal effect, useful for cleaning skin and as disinfectant on medical devices, contains sodium

chloride added to electrolyzed water, obtained by electrolysis of aqueous hydrochloric acid.

DC D15 D22 E36 J03 P34 X25  
PA (MORG) MORINAGA MILK IND CO LTD

CYC 1

PI JP 2001269393 A 20011002 (200217)\* 6p  
ADT JP 2001269393 A JP 2000-85304 20000324

PRAI JP 2000-85304 20000324

AB JP2001269393 A UPAB: 20020313

NOVELTY - Physiological saline having germicidal effect contains sodium chloride and electrolyzed water. The electrolyzed water is obtained by electrolysis of aqueous hydrochloric acid free from sodium chloride.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for manufacture of the physiological saline. The method involves adding hydrochloric acid to pure sodium chloride-free water, electrolyzing the solution in a non-diaphragm electrolytic tank and adding a predetermined amount of sodium chloride to the electrolyzed water.

USE - For cleaning skin, eyes, other affected areas and teeth, and as disinfectant for cleaning medical devices (claimed).

ADVANTAGE - Since the physiological saline does not contain chemical microbicide or preservative, it is safe for use on the human body. The physiological saline can be prepared easily and inexpensively using simple apparatus.

Dwg. 0/0

TI Physiological saline with germicidal effect, useful for cleaning skin and as disinfectant on medical devices, contains sodium chloride added to electrolyzed water, obtained by electrolysis of aqueous hydrochloric acid.

TT TT: PHYSIOLOGICAL SALINE GERMICIDE EFFECT USEFUL CLEAN SKIN  
DISINFECT MEDICAL DEVICE CONTAIN SODIUM CHLORIDE ADD WATER  
OBTAIN ELECTROLYTIC AQUEOUS HYDROCHLORIC ACID.

L12 ANSWER 520 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2001-300255 [31] WPIDS

DNC C2001-092184

TI Disinfectant composition for disinfecting substrate, e.g. topical infection, contains electrolytic chloroxidizing agent, viscosity-enhancing agent, electrolyte, and water.

DC D22 E33

IN AZIENDE, C R; ROGOZINSKI, W; ROGOZINSKI, W J

PA (ROGO-I) ROGOZINSKI W J; (AZAN) ACRAF AZIENDE CHIM RIUNITE; (AMUC-N)  
AMUCHINA SPA

CYC 95

PI WO 2001028336 A1 20010426 (200131)\* EN 20p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001024675 A 20010430 (200148)

US 6333054 B1 20011225 (200206)

EP 1259114 A1 20021127 (200302) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

CZ 2002001380 A3 20021211 (200309)

SK 2002000545 A3 20030109 (200309)

KR 2002075364 A 20021004 (200313)

CN 1379623 A 20021113 (200317)

JP 2003511473 W 20030325 (200330) 19p

HU 2002003699 A1 20030428 (200337)

ADT WO 2001028336 A1 WO 2000-US41341 20001020; AU 2001024675 A AU 2001-24675  
20001020; US 6333054 B1 US 1999-422327 19991021; EP 1259114 A1 EP  
2000-988469 20001020, WO 2000-US41341 20001020; CZ 2002001380 A3 WO

2000-US41341 20001020, CZ 2002-1380 20001020; SK 2002000545 A3 WO  
2000-US41341 20001020, SK 2002-545 20001020; KR 2002075364 A KR  
2002-705073 20020419; CN 1379623 A CN 2000-814529 20001020; JP 2003511473  
W WO 2000-US41341 20001020, JP 2001-530940 20001020; HU 2002003699 A1 WO  
2000-US41341 20001020, HU 2002-3699 20001020

FDT AU 2001024675 A Based on WO 2001028336; EP 1259114 A1 Based on WO  
2001028336; CZ 2002001380 A3 Based on WO 2001028336; SK 2002000545 A3  
Based on WO 2001028336; JP 2003511473 W Based on WO 2001028336; HU  
2002003699 A1 Based on WO 2001028336

PRAI US 1999-422327 19991021

AB WO 200128336 A UPAB: 20010607

NOVELTY - A disinfectant composition comprises an electrolytic chloroxidizing agent, a viscosity-enhancing agent, an electrolyte, and water.

USE - For disinfecting a substrate, e.g. a topical infection, a heavily contaminated or infected wound, or an intact skin site prior to surgical or invasive procedure (claimed).

ADVANTAGE - The inventive disinfectant composition is safe and effective, and is a broad-spectrum topical antimicrobial agent.

Dwg.0/0

TT TT: DISINFECT COMPOSITION DISINFECT SUBSTRATE TOPICAL INFECT  
CONTAIN ELECTROLYTIC AGENT VISCOSITY ENHANCE AGENT  
ELECTROLYTIC WATER.

L12 ANSWER 529 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2000-638778 [62] WPIDS

DNC C2000-192187

TI Safe therapeutic agent comprising sea water ionized by electrolysis and optionally ultraviolet treatment, having e.g. antibacterial, antiviral, decongestant, disinfectant and pesticidal activity.

DC B05 C03 D21

IN KOWALCZY, M A

PA (KOWA-I) KOWALCZY M A

CYC 1

PI CA 2261278 A1 20000804 (200062)\* FR 8p

ADT CA 2261278 A1 CA 1999-2261278 19990204

PRAI CA 1999-2261278 19990204

AB CA 2261278 A UPAB: 20001130

NOVELTY - A novel therapeutic agent (I), designated 'Hydromicyne', comprises sea water which has been ionized by electrolysis and optionally ultraviolet treatment. (N.B. This specification has no claims, and the abstract is thus based entirely on the disclosure),

ACTIVITY - Antibacterial; antiviral; decongestant; cytostatic; immunostimulant; antiinflammatory; dermatological; antipsoriatic; antifungal; antiprotozoal; neuroprotective; nootropic.

MECHANISM OF ACTION - Oxidant; free radical source; trace element source; neurotransmitter. Electrolysis converts salts in sea-water (e.g. chlorides, bromides and iodides) into compounds having strong oxidant and bactericidal power. (I) also contains trace elements such as copper and zinc (necessary for the action of enzymes in cellular oxidation-reduction cycles) and iodine (necessary for thyroid and cerebral function).

USE - (I) is useful in the fields of human or veterinary medicine, dentistry, dermatology, agriculture and health. Typically (I) has antibiotic (i.e. antibacterial and antiviral), immunostimulant, antiinflammatory, decongestant, disinfectant and pesticidal (e.g. insecticidal, acaricidal and fungicidal) activity. Other specific applications include prevention of tumor promotion in cells; induction of apoptosis in cancer cells; restoring the weight of cachexia patients; treatment of influenza, colds or respiratory problems by intranasal administration; destruction of parasites in the organism; treatment of dermatological disorders such as psoriasis, acne rosacea or other types of

acne; elimination of vaginal or urinary tract infections (e.g. papilloma virus infections (which can cause cervical cancer), chlamydia, gonorrhea, syphilis, genital warts, herpes, candidiasis or trichomoniasis) by intravaginal administration; and treatment of cerebral dysfunction and mental degeneration disorders (e.g. Alzheimer's disease) by intranasal administration. (I) may also be added to biological cultures.

ADVANTAGE - (I) has a similar chemical composition to human blood, and is thus a completely safe medicament, completely free of side-effects and contra-indications. (I) can be prepared any without risk of transmission of infections such as AIDS or hepatitis.

Dwg. 0/0

TI Safe therapeutic agent comprising sea water ionized by electrolysis and optionally ultraviolet treatment, having e.g. antibacterial, antiviral, decongestant, disinfectant and pesticidal activity.

AB CA 2261278 UPAB: 20001130

NOVELTY - A novel therapeutic agent (I), designated 'Hydromicyne', comprises sea water which has been ionized by electrolysis and optionally ultraviolet treatment. (N.B. This specification has no claims, and the abstract is thus based entirely on the disclosure). . . . antiinflammatory; dermatological; antipsoriatic; antifungal; antiprotozoal; neuroprotective; nootropic.

MECHANISM OF ACTION - Oxidant; free radical source; trace element source; neurotransmitter. Electrolysis converts salts in sea-water (e.g. chlorides, bromides and iodides) into compounds having strong oxidant and bactericidal power. (I) also contains trace elements such as copper and zinc (necessary for the action of enzymes in cellular oxidation-reduction). . .

TT TT: SAFE THERAPEUTIC AGENT COMPRISING SEA WATER

ELECTROLYTIC OPTION ULTRAVIOLET TREAT ANTIBACTERIAL ANTIVIRAL DECONGESTANT DISINFECT PEST ACTIVE.

L12 ANSWER 531 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2000-604646 [58] WPIDS

DNN N2000-447500 DNC C2000-181301

TI Sterilized water manufacturing method for washing hands, food, involves generating superoxide or hydrogen peroxide in clean water, circulated between electrolytic bath and water storage tank by electric power.

DC A26 A85 D15 D22 P34

PA (FUYO-N) FUYO KAGAKU KOGYO KK

CYC 1

PI JP 2000210666 A 20000802 (200058)\* 12p

ADT JP 2000210666 A JP 1999-12199 19990120

PRAI JP 1999-12199 19990120

AB JP2000210666 A UPAB: 20001114

NOVELTY - Superoxide or hydrogen peroxide is generated and the density is increased in clean water, circulated between an electrolyte bath (1) and water storage tank (12). Electric power is supplied between cylindrical cathode (3) and a cylindrical anode (4) placed in the electrolytic bath.

DETAILED DESCRIPTION - The cathode is made of conductive porous substance and with polyaniline coated on the surface and anode is made of an aggregate of titanium fiber. An INDEPENDENT CLAIM is also included for manufacturing apparatus for sterilization water.

USE - For manufacturing sterilized water for washing hands, food, tableware, cooking and medical implements, etc.

ADVANTAGE - Enables safe usage for human or other implements. Saves energy and reduces cost. Enables efficient storage of hydrogen peroxide. Improves electrode process efficiency as titanium fiber is used for anode. Eliminates need for replenishment of chemical agents.

DESCRIPTION OF DRAWING(S) - The figure shows the outline cross sectional view of the electrolyte bath.

Electrolyte bath 1

Cathode 3

TI Anode 4  
Water storage tank 12  
Dwg. 2/9

TI Sterilized water manufacturing method for washing hands, food, involves generating superoxide or hydrogen peroxide in clean water, circulated between electrolytic bath and water storage tank by electric power.

L12 ANSWER 556 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2000-175516 [16] WPIDS  
DNC C2000-054759

TI Apparatus for hypochlorous acid formation used for sterilizing water consists of electrolytic cell connected to solution tank containing chloride ion solution and has groove in electrolytic cell to store chloride ion.

DC D15 D22  
PA (MATU) MATSUSHITA DENKI SANGYO KK  
CYC 1  
PI JP 2000024664 A 20000125 (200016)\* 8p  
ADT JP 2000024664 A JP 1998-194021 19980709  
PRAI JP 1998-194021 19980709  
AB JP2000024664 A UPAB: 20000330  
NOVELTY - An electrolytic cell (12) provided with pair of electrodes (14) is connected to solution tank (16) containing chloride ion solution (15) through elution volume flow path (17). An outlet is provided for ejecting electrolyte from the electrolytic cell. A groove is provided in the cell for storing chloride ion solution. DETAILED DESCRIPTION - A control unit (23) controls the power supply to electrode and a supply channel (20) supplies water. An INDEPENDENT CLAIM is also included for the formation of hypochlorous acid.  
USE - The apparatus is used in the formation of hypochlorous acid used in the sterilization of bathtub water.  
ADVANTAGE - The power consumption is low and the efficiency of hypochlorous acid formation is increased. Leakage of chloride ion solution from the electrolysis groove is prevented DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of hypochlorous acid formation apparatus. (12) Electrolytic cell; (14) Electrodes; (15) Chloride ion solution; (16) Solution tank; (17) Flow path; (20) Water supply channel; (23) Control unit.

Dwg. 1/5

TI Apparatus for hypochlorous acid formation used for sterilizing water consists of electrolytic cell connected to solution tank containing chloride ion solution and has groove in electrolytic cell to store chloride ion.

L12 ANSWER 788 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1992-156106 [19] WPIDS  
DNC C1992-071931

TI Prodn. of sterilised water contg. hypochlorous acid - electrolysing so both solns. in anode and cathode chambers are mixed to give prod. of specified pH.

DC D15 E36 J03  
PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK  
CYC 1  
PI JP 04094788 A 19920326 (199219)\* 4p  
JP 2892121 B2 19990517 (199925) 5p  
ADT JP 04094788 A JP 1990-213279 19900810; JP 2892121 B2 JP 1990-213279 19900810  
FDT JP 2892121 B2 Previous Publ. JP 04094788  
PRAI JP 1990-213279 19900810  
AB JP 04094788 A UPAB: 19931006  
Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber, and HCl to the cathode chamber. Water in the tank is

electrolysed so that pH of the electrolysed water in the anode chamber is 3-7 and that in the cathode chamber is 4-7. Both solns. formed in the anode and cathode chambers are mixed to obtain electrolysed water with pH of almost 3-7.

ADVANTAGE - Sterilised water contg. HClO having strong sterilising power at low concn. is safely and effectively produced without generating Cl2. Electric power used for the electrolysis is saved. (0/2)

0/2

TT TT: PRODUCE STERILE WATER CONTAIN HYPOCHLOROUS ACID  
ELECTROLYTIC SO SOLUTION ANODE CATHODE CHAMBER MIX PRODUCT  
SPECIFIED PH.

L12 ANSWER 789 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1992-156105 [19] WPIDS  
DNC C1992-071930  
TI Prodn. of sterilised water contg. hypochlorous acid - by electrolysing water in tank to give specified pH of hypochlorous soln. in anode chamber.  
DC D15 E36 J03  
PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK  
CYC 1  
PI JP 04094787 A 19920326 (199219)\* 9p  
JP 2892120 B2 19990517 (199925) 9p  
ADT JP 04094787 A JP 1990-213278 19900810; JP 2892120 B2 JP 1990-213278 19900810  
FDT JP 2892120 B2 Previous Publ. JP 04094787  
PRAI JP 1990-213278 19900810  
AB JP 04094787 A UPAB: 19931006  
Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber and HCl into the cathode chamber. Water in the tank is electrolysed so that pH of hypochlorous aq. soln. formed in the anode chamber is 3-7.

Electrolysed water discharged from the cathode chamber is pref. fed back to the electrolysing tank through a supplying pipe to the water supplying part of the anode chamber. Water in the electrolysing tank may be electrolysed so that pH in the anode chamber is 3-7 and that in the cathode chamber is 4-12 and both solns. may be mixed to obtain electrolysed water with pH of almost 3-7.

ADVANTAGE - Sterilised water is produced in high efficiency. Electric power used for the electrolysis is saved as pH in the anode chamber is kept at 3-7 at lower electrolysing voltage. Cl2 gas does not generate during the electrolysis. (0/0)

0/0

TT TT: PRODUCE STERILE WATER CONTAIN HYPOCHLOROUS ACID  
ELECTROLYTIC WATER TANK SPECIFIED PH HYPOCHLOROUS  
SOLUTION ANODE CHAMBER.

L12 ANSWER 908 OF 917 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
AN 1997:511868 BIOSIS  
DN PREV199799811071  
TI Reduction of *Staphylococcus aureus* in atopic skin lesions with acid electrolytic water: A new therapeutic strategy for atopic dermatitis.  
AU Sasai-Takedatsu, M. (1); Kojima, T.; Yamamoto, A.; Hattori, K.; Yoshijima, S.; Taniuchi, S.; Namura, S.; Akamatsu, H.; Horio, T.; Kobayashi, Y.  
CS (1) Dep. Pediatr., Kansai Med. Univ., 10-15 Fumizonocho, Moriguchi, Osaka 570 Japan  
SO Allergy (Copenhagen), (1997) Vol. 52, No. 10, pp. 1012-1016.  
ISSN: 0105-4538.  
DT Article  
LA English  
AB The subjects studied were 22 pediatric patients newly diagnosed with atopic dermatitis (AD); 11 were treated with acid electrolytic water (AEW), which has a strong bactericidal activity

(AEW group), and the other 11 with tap water (placebo group). AEW or tap water, 1 ml/cm<sup>2</sup> (body surface area), was sprayed on their **skin** lesions with a spray gun each twice a day for a week. There were no significant differences between the two groups in regard to sex, age, serum IgE, peripheral eosinophil counts, grading scores of AD, and duration of AD. The study was designed as a randomized, placebo-controlled, double-blind clinical trial. Colony counts of *Staphylococcus aureus* on **skin** lesions in the AEW group, both 3 min after spraying ( $P < 0.05$ ) and after 1 week of skin treatment ( $P < 0.01$ ), were significantly decreased as compared with colony counts before treatment, while there was no significant difference in the placebo group before and after treatment. Grading scores of AD also decreased in the AEW group ( $P < 0.01$ ), but not in the placebo group. Both the subjects' guardians' evaluation and a referee physician's evaluation of treatment effect were significantly higher in the AEW group than in the placebo group ( $P < 0.01$ ). AEW may be potentially effective in preventing a staphylococcal chronic inflammation in AD because of its strong bactericidal activity.

TI Reduction of *Staphylococcus aureus* in atopic **skin** lesions with acid **electrolytic water**: A new **therapeutic** strategy for atopic dermatitis.

AB The subjects studied were 22 pediatric patients newly diagnosed with atopic dermatitis (AD); 11 were treated with acid **electrolytic water** (AEW), which has a strong **bactericidal** activity (AEW group), and the other 11 with tap water (placebo group). AEW or tap water, 1 ml/cm<sup>2</sup> (body surface area), was sprayed on their **skin** lesions with a spray gun each twice a day for a week. There were no significant differences between the two. . . duration of AD. The study was designed as a randomized, placebo-controlled, double-blind clinical trial. Colony counts of *Staphylococcus aureus* on **skin** lesions in the AEW group, both 3 min after spraying ( $P < 0.05$ ) and after 1 week of skin treatment. . .

=> d 1-11 13-14 16 20 24 28 29 34 35 48 62 65-66 78 101-103 136-138 195 219 222 235  
247 319 330 381 430 447 553 554 643 790 808 816 879 bib ab kwic

L12 ANSWER 1 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:802359 CAPLUS

TI Urine stone adhesion prevention device [Machine Translation].

IN Otsubo, Toshihiro; Kondo, Hiroaki

PA Denso Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003290768	A2	20031014	JP 2002-101326	20020403
PRAI	JP 2002-101326		20020403		

AB [Machine Translation of Descriptors]. 1st intermediate electrode of ferrite make and magnesium make easily, stabilizing the bactericidal effect by forming the improvement **water** with the **electrolysis** by the 2nd intermediate electrode 22 of 12, it can maintain and at the same time it offers the urine stone adhesion prevention device 1 where also the scavenging effect is obtained. As the improvement water which possesses the **bactericidal effect** which includes various oxygen active kinds (OH and H<sub>2</sub>O<sub>2</sub>) such as O<sub>2</sub> and O<sub>3</sub> by the **electrolysis** of the **water**, in the 1st electrolytic room 10 where 1st intermediate electrode 12 of ferrite make is allotted is formed, it formed the improvement water which possesses the alk. scavenging effect which includes Mg (OH)<sub>2</sub> in the 2nd electrolytic room 20 where 2nd intermediate electrode 22 of magnesium make is allotted followed these improvement water to specified rule and flowed out to toilet 6. Because of this, stabilizing the **bactericidal effect** with the easy expedient that, the **electrolysis** it does the **water**, it can maintain and at the same time it can actualize the urine stone adhesion prevention device 1 where also the scavenging effect is obtained.

AB [Machine Translation of Descriptors]. 1st intermediate electrode of ferrite make and magnesium make easily, stabilizing the bactericidal effect by forming the improvement **water** with the **electrolysis** by the 2nd intermediate electrode 22 of 12, it can maintain and at the same time it offers the urine stone adhesion prevention device 1 where also the scavenging effect is obtained. As the improvement water which possesses the **bactericidal effect** which includes various oxygen active kinds (OH and H<sub>2</sub>O<sub>2</sub>) such as O<sub>2</sub> and O<sub>3</sub> by the **electrolysis** of the **water**, in the 1st electrolytic room 10 where 1st intermediate electrode 12 of ferrite make is allotted is formed, it formed the improvement water which possesses the alk. scavenging effect which includes Mg (OH)<sub>2</sub> in the 2nd electrolytic room 20 where 2nd intermediate electrode 22 of magnesium make is allotted followed these improvement water to specified rule and flowed out to toilet 6. Because of this, stabilizing the **bactericidal effect** with the easy expedient that, the **electrolysis** it does the **water**, it can maintain and at the same time it can actualize the urine stone adhesion prevention device 1 where also the scavenging effect is obtained.

L12 ANSWER 2 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:762070 CAPLUS

DN 139:265333

TI Seawater sterilization apparatus for pathogenic microorganism removal by bromate ion

IN Kariatsume, Yoshifumi

PA Rikujo Yoshoku Kogaku Kenkyusho K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003275770	A2	20030930	JP 2002-86293	20020326
PRAI	JP 2002-86293		20020326		

AB The app. has a seawater acidification unit and an electrolysis unit for electrolyzing the resulting seawater having acidic pH to form BrO<sub>3</sub><sup>-</sup>. The app. does not need large-scale high-cost units for conventional ozone treatment, and the compact app. with high sterilization effect is suitable for fish growth tanks, seawater purifn. facilities, etc.

IT Water purification

(electrolysis; seawater sterilization app. having seawater acidification unit and electrolysis unit for pathogenic microorganism removal by bromate ion)

L12 ANSWER 3 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:762064 CAPLUS

TI Sterilization device [Machine Translation].

IN Kondo, Yasuto; Iseki, Masahiro; Umezawa, Hiroyuki; Ikematsu, Mineo; Koizumi, Yurika

PA Sanyo Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003275764	A2	20030930	JP 2002-83568	20020325
PRAI	JP 2002-83568		20020325		

AB [Machine Translation of Descriptors]. The hypochlorous acid is formed smoothly in suffering electrolytic underwater without having an influence on the fluctuation of water level of the suffering electrolytic water, the sterilization device which because of this can sterilize is offered.

Sterilization device 1 of invention at least electrode for electrolysis of pair, 5 and the floater - 6 has the electrolytic unit 4 which, possesses with 5 following to the fluctuation of water level of the suffering electrolytic water the floater - due to the buoyancy of 6, electrode soaks 5 for electrolysis and 5 in suffering electrolytic underwater, in electrode lets flow elec. current 5 for particular electrolysis and 5 in a state where it relates, forms the hypochlorous acid in suffering electrolytic underwater.

AB [Machine Translation of Descriptors]. The hypochlorous acid is formed smoothly in suffering electrolytic underwater without having an influence on the fluctuation of water level of the suffering electrolytic water, the sterilization device which because of this can sterilize is offered.

Sterilization device 1 of invention at least electrode for electrolysis of pair, 5 and the floater - 6 has the electrolytic unit 4 which, possesses with 5 following to the fluctuation of water level of the suffering electrolytic water the floater - due to the buoyancy of 6, electrode soaks 5 for electrolysis and 5 in suffering electrolytic underwater, in electrode lets flow elec. current 5 for particular electrolysis and 5 in a state where it relates, forms the hypochlorous acid in suffering electrolytic underwater.

L12 ANSWER 4 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:737944 CAPLUS

DN 139:251667

TI Method and apparatus for electrolyzing water  
IN Hung, Yen-Con; Chung, Donghwan  
PA The University of Georgia Research Foundation, Inc., USA  
SO PCT Int. Appl., 22 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003076688	A2	20030918	WO 2003-US6586	20030303
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2002-361694P P 20020306

AB Feed water comprising an aq. salt soln. is supplied to an anode chamber and to a cathode chamber. The feed water is cathodically electrolyzed in the cathode chamber to produce alk. electrolyzed water (catholyte) and is anodically electrolyzed in the anode chamber to produce electrolyzed water (anolyte) whose pH is modified. A portion of alk. catholyte from the cathode chamber is recycled back to the feed **water** during continuous **electrolysis** to provide a blend of feed water and alk. catholyte to the anode chamber to control pH of the anodically electrolyzed water therein to provide more stable **bactericidal** activity thereof over time.

AB Feed water comprising an aq. salt soln. is supplied to an anode chamber and to a cathode chamber. The feed water is cathodically electrolyzed in the cathode chamber to produce alk. electrolyzed water (catholyte) and is anodically electrolyzed in the anode chamber to produce electrolyzed water (anolyte) whose pH is modified. A portion of alk. catholyte from the cathode chamber is recycled back to the feed **water** during continuous **electrolysis** to provide a blend of feed water and alk. catholyte to the anode chamber to control pH of the anodically electrolyzed water therein to provide more stable **bactericidal** activity thereof over time.

ST electrolyzer water electrolysis sterilization  
disinfection

IT Sterilization and Disinfection  
(app. for water electrolysis for)

IT pH  
(monitoring in app. for water electrolysis for  
sterilization and disinfection)

IT Redox potential  
(of anilite in app. for water sterilization and  
disinfection by electrolysis of soln. contg. NaCl)

IT 7647-14-5, Sodium chloride, reactions  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(app. for water sterilization and disinfection by  
electrolysis of soln. contg.)

L12 ANSWER 5 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:723480 CAPLUS

DN 139:234948

TI Electrolytic water purification apparatus and drinking water feeding  
device having the apparatus

IN Kishi, Minoru; Hirota, Tatsuya; Kawamura, Yozo; Sugimoto, Muneaki;  
Inamoto, Yoshihiro; Hiro, Naoki; Kawachi, Motoki  
PA Sanyo Electric Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003260467	A2	20030916	JP 2002-67424	20020312
PRAI	JP 2002-67424		20020312		

AB The app. is equipped with a water flow path, an electrolytic processing means for coagulation of suspended matter in water, a filter device for removal of the coagulated suspended matter, and a controller for applying d.c. voltage to a pair of electrodes in the electrolytic processing means. Another type of an app. is also claimed for purifn. of drinking water in a water feed tank, and the app. is equipped with a water flow path, a water circulation pump, and an electrolytic disinfection means. The drinking water feeding device is equipped with the electrolytic disinfection app. and a means for discharging gas generated from the app., where the gas discharge means is placed above the water feed tank. Water can be purified in high efficiency without using chem. agents or microorganisms.

IT Water purification

(sterilization and disinfection; water purifn. app.  
equipped with electrolytic means for water  
coagulation or disinfection)

L12 ANSWER 6 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:702996 CAPLUS

DN 139:234936

TI Water treatment equipment by electrolysis

IN Kawamura, Yozo; Kishi, Minoru; Inamoto, Yoshihiro; Nakanishi, Minoru;  
Yoshida, Shigeki; Hirota, Tatsuya; Sugimoto, Muneaki

PA Sanyo Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003251354	A2	20030909	JP 2002-260291	20020905
PRAI	JP 2001-397273	A	20011227		

AB The equipment includes an electrolysis tank connected with a water tank (e.g., pool) for electrolyzing treatment of water for disinfection, and a bypass without passing through the electrolysis tank for recycling the water back to the water tank, and an electromagnetic valve arranged in the water treatment passage, to reduce collision of water hammer caused by the valve.

IT Water purification

(sterilization and disinfection; water treatment  
equipment by electrolysis)

L12 ANSWER 7 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:693221 CAPLUS

DN 139:220867

TI Electrolytic cell for ozone generation

IN Shiue, Lin-Ren; Shiue, Chia-Chann; Chung, Hsing-Chen; Hsieh, Fei-Chen;  
Hsieh, Yu-His; Jou, Jiung-Jau

PA Luxon Energy Devices Corporation, Peop. Rep. China

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1340841	A1	20030903	EP 2002-4416	20020226
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRAI EP 2002-4416 20020226

AB An electrolytic process of ozone generation using platinum-coated titanium grid as cathode,  $\beta$ -PbO<sub>2</sub> deposited on the grid as anode, and batteries in conjunction with supercapacitors as a DC power source is described. No membrane is required to sep. the electrodes, and the electrolyte comprises a neutral salt such as NaCl. The electrolytic app. comprising a cell, the electrodes, and a bubbler can also be inserted directly in water that needs ozone treatment. As batteries can power the ozone generation, the app. can be disposed at point-of-use and away from the city electricity. The electrolytic app. can be used for sterilization of water for pharmaceutical industry, household water supply, for surface cleaning of semiconductors, meats, fish, fruits, as well as for disinfection of SPA water and personal hygiene.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Sterilization and Disinfection  
(electrolytic cell for ozone generation for water  
purifn.)

L12 ANSWER 8 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:667631 CAPLUS

DN 139:161053

TI Production of antimicrobial aerosol for spraying on crops

IN Saito, Yosuke

PA Hoshizaki Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003238322	A2	20030827	JP 2002-40357	20020218
PRAI	JP 2002-40357		20020218		

AB Copper ions are added to an acid water produced by electrolysis and the soln. is charged in an aerosol. The water obtained from the electrolysis is effective in controlling microorganisms in a short time, while the copper ions are effective in maintaining antimicrobial activity for longer period.

AB Copper ions are added to an acid water produced by electrolysis and the soln. is charged in an aerosol. The water obtained from the electrolysis is effective in controlling microorganisms in a short time, while the copper ions are effective in maintaining antimicrobial activity for longer period.

ST electrolysis acid water copper ion  
antimicrobial aerosol crop

L12 ANSWER 9 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:615914 CAPLUS

DN 139:155001

TI Method and apparatus for manufacture of antibacterial electrolytic water

IN Nakamura, Shinichi; Fukuzuka, Kunihiko

PA Omega Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003225671	A2	20030812	JP 2002-29724	20020206
PRAI	JP 2002-29724		20020206		
AB	Water for dental treatment, etc. is <b>sterilized</b> to bacterial no. $\leq 200$ cfu/mL, preferably $\leq 100$ cfu/mL, by mixing with <b>electrolytic water</b> . A compact app. for manuf. of the electrolytic water is also claimed.				
AB	Water for dental treatment, etc. is <b>sterilized</b> to bacterial no. $\leq 200$ cfu/mL, preferably $\leq 100$ cfu/mL, by mixing with <b>electrolytic water</b> . A compact app. for manuf. of the electrolytic water is also claimed.				

L12 ANSWER 10 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:615912 CAPLUS

DN 139:148772

TI Apparatus and method for manufacture of **electrolytic sterilization water**

IN Kurima, Koichi; Nishi, Katsuyuki; Kusama, Hiroyuki

PA Daikin Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003225667	A2	20030812	JP 2002-23826	20020131
PRAI	JP 2002-23826		20020131		

AB The app. has an electrolytic bath having a diaphragm, a pipe as a passage of strongly acidic electrolytic water from the anode chamber, a pipe as a passage of strongly basic electrolytic water from the cathode chamber, a mixing tank linked to the ends of the pipes, a valve controlling the flow in the latter pipe, and a means for controlling open/closed time of the valve. The app. is useful for manuf. of water showing designated pH for sterilization of food.

TI Apparatus and method for manufacture of **electrolytic sterilization water**

ST **electrolytic sterilization water** manuf app pH; food sterilization water electrolytic pH control

IT Antibacterial agents

(app. and method for manuf. of **electrolytic sterilization water**)

IT Water purification

(electrolysis, app.; app. and method for manuf. of **electrolytic sterilization water**)

IT Water purification

(electrolysis; app. and method for manuf. of **electrolytic sterilization water**)

L12 ANSWER 11 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:609727 CAPLUS

DN 139:124192

TI Electrolytic cell for ozone generation

IN Shiue, Lin-Ren; Shiue, Chia-Chann; Chung, Hsing-Chen; Hsieh, Fei-Chen; Hsieh, Yu-His; Jou, Jiung-Jau

PA Taiwan

SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003146105	A1	20030807	US 2002-68277	20020206
JP 2003293177	A2	20031015	JP 2002-106484	20020409
PRAI US 2002-68277	A	20020206		
AB	An electrolytic process of ozone generation using platinum-coated titanium grid as cathode, $\beta$ -PbO <sub>2</sub> deposited on the grid as anode, and batteries in conjunction with supercapacitors as a DC power source is described. No membrane is required to sep. the electrodes, and a neutral salt such as NaCl is used to enhance the generation of ozone gas. The electrolytic app. comprising a cell, the electrodes, and a bubbler can also be inserted directly in water that needs ozone treatment. As batteries can power the ozone generation, the app. can be disposed at point-of-use and away from the city electricity. The electrolytic app. can be used for sterilization of water for pharmaceutical industry, household water supply, for surface cleaning of semiconductors, meats, fish, fruits, as well as for disinfection of SPA water and personal hygiene.			
IT	Sterilization and Disinfection (electrolytic cell for ozone generation for water purifn.)			
L12	ANSWER 13 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN			
AN	2003:578078 CAPLUS			
DN	139:122371			
TI	Sterilization-disinfection apparatus for tap water			
IN	Baba, Yuko			
PA	Toshiba Corp., Japan			
SO	Jpn. Kokai Tokkyo Koho, 9 pp.			
	CODEN: JKXXAF			
DT	Patent			
LA	Japanese			
FAN.CNT 1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003211163	A2	20030729	JP 2002-13440	20020122
PRAI JP 2002-13440		20020122		
AB	The app. placed in tap water distribution passages from the water purifn. facilities to the ends of the water service, has a chem. substance formation means for electrolyzing the water to form chem. substances having sterilization and disinfection function. Preferably, chloramine or Cl ion in the water is selectively electrolyzed to form HClO. The app. prevents harmful substance generation caused by excess Cl addn. in the water purifn. facilities and allows the end water to contain necessary amt. of Cl.			
ST	water sterilization disinfection app electrolysis hypochlorous acid; hypochlorous acid formation water disinfection sterilization; tap water distribution passage sterilization disinfection app			
IT	Water purification (electrolysis, app.; tap water sterilization-disinfection app. set in water distribution passage for electrolytic generation of chem. substance)			
IT	Water purification (sterilization and disinfection; tap water sterilization-disinfection app. set in water distribution passage for electrolytic generation of chem. substance)			
IT	Drinking waters Water distribution systems (tap water sterilization-disinfection app. set in water distribution passage for electrolytic generation of chem. substance)			

IT 7790-92-3P, Hypochlorous acid  
RL: BUU (Biological use, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(tap water sterilization-disinfection app. set in water distribution passage for electrolytic generation of chem. substance)

IT 7782-50-5, Chlorine, reactions 10599-90-3, Chloramine  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(tap water sterilization-disinfection app. set in water distribution passage for electrolytic generation of chem. substance)

L12 ANSWER 14 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:577941 CAPLUS

DN 139:113111

TI Sterilization/deodorization using acidic electrolytic water, and its application to storage chambers

IN Achiwa, Nobuo

PA Hoshizaki Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003210557	A2	20030729	JP 2002-10264	20020118
PRAI	JP 2002-10264		20020118		

AB Sterilization/deodorization is carried out using Cl gas volatilized from acidic electrolytic water. Storage chambers (e.g., refrigerators) contain Cl-contg. acidic electrolytic water in open containers so that Cl gas from the water makes contact with air in the chambers.

TI Sterilization/deodorization using acidic electrolytic water, and its application to storage chambers

AB Sterilization/deodorization is carried out using Cl gas volatilized from acidic electrolytic water. Storage chambers (e.g., refrigerators) contain Cl-contg. acidic electrolytic water in open containers so that Cl gas from the water makes contact with air in the chambers.

ST sterilization deodorization acidic electrolytic water refrigerator; storage chamber sterilization deodorization electrolytic water; chlorine electrolytic water sterilization deodorization refrigerator

IT Deodorization

Refrigerating apparatus

Sterilization and Disinfection  
(sterilization/deodorization of storage chambers using Cl gas from acidic electrolytic water)

IT 7782-50-5, Chlorine, biological studies

RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)

(sterilization/deodorization of storage chambers using Cl gas from acidic electrolytic water)

L12 ANSWER 16 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:559020 CAPLUS

DN 139:100229

TI Sterilization of toxin-producing microorganism and the toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning

IN Suzuki, Tetsuya

PA Japan  
SO Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003206209	A2	20030722	JP 2002-64	20020104
PRAI	JP 2002-64		20020104		
AB	In the title process, used is strongly acidic electrolytic water produced by electrolyzing dild. aq. inorg. salt in a diaphragm electrolytic cell. Thus, the acidic water completely inhibited growth of <i>Aspergillus parasiticus</i> and detoxicated its aflatoxin.				
TI	Sterilization of toxin-producing microorganism and the toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning				
ST	acidic electrolytic water detoxication aflatoxin; sterilization <i>Aspergillus</i> toxin acidic electrolytic water				
IT	Toxins RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process) (enterotoxin A; sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				
IT	Antibacterial agents <i>Aspergillus flavus</i> <i>Aspergillus sojae</i> Detoxification Food poisoning Fungicides <i>Staphylococcus</i> (sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				
IT	Aflatoxins Mycotoxins RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process) (sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				
IT	7647-14-5, Sodium chloride, uses RL: NUU (Other use, unclassified); USES (Uses) (electrolytic water produced from aq. soln. of; sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				
IT	7732-18-5, Water, biological studies 7790-92-3, Hypochlorous acid RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				
IT	1162-65-8, Aflatoxin B1 1165-39-5, Aflatoxin G1 7220-81-7, Aflatoxin B2 7241-98-7, Aflatoxin G2 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process) (sterilization of toxin-producing microorganisms and toxin detoxification by strongly acidic electrolytic water for prevention of food poisoning)				

DN 139:73687  
 TI Electrolytic device and method for disinfecting water in a water supply system by means of the generation of active chlorine  
 IN Tholen, Johannes Petrus Paulus  
 PA Neth.  
 SO PCT Int. Appl., 17 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003055806	A1	20030710	WO 2002-NL873	20021231
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	NL 1019698	C2	20030709	NL 2002-1019698	20020104

PRAI NL 2002-1019698 A 20020104

AB The present invention relates to an electrolytic device for disinfecting water in a water supply system using active chlorine, comprising an electrolytic cell having electrodes and a generator driven by the water, a part of the water being guided through the electrolytic cell and at least a part of the feeding of the electrolytic cell being guided through a salt dosing device contg. a compd. capable of supplying chloride ions to the water.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Water purification  
 (sterilization and disinfection; electrolytic device and method for disinfecting water in a water supply system by generating of active chlorine)

L12 ANSWER 24 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
 AN 2003:470255 CAPLUS  
 DN 139:11820  
 TI Foot spa

IN Kurokawa, Keiko; Motegi, Masayuki; Suzuki, Daisuke; Tsukui, Toshimitsu  
 PA Sanyo Electric Co., Ltd., Japan

SO Eur. Pat. Appl., 27 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1319384	A1	20030618	EP 2002-257668	20021106
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	JP 2003180790	A2	20030702	JP 2001-381663	20011214
	JP 2003180791	A2	20030702	JP 2001-381673	20011214

PRAI JP 2001-381663 A 20011214  
 JP 2001-381673 A 20011214

AB Sanitary foot warm bath equipment is provided which prevents or suppresses proliferation of saprophytic bacteria in a foot bath. The foot warm bath equipment is foot warm bath equipment which reserves hot water for foot bathing in a foot bath, the equipment comprising heating means for heating

water in the foot bath to produce hot water of setting temp., electrolytic water producing means for producing electrolytic water contg. hypochlorous acid by electrolyzing the water, and control means for controlling the heating means and the electrolytic water producing means, wherein the electrolytic water produced by the electrolytic water producing means is supplied into the foot bath.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Water purification  
(sterilization and disinfection; foot spa with  
electrolytic system for water disinfection)

L12 ANSWER 28 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:460241 CAPLUS  
DN 139:41359  
TI Electrolytic water production apparatus and disinfection or antibacterial treatment of the apparatus using electrolytically produced hypochlorite-containing water  
IN Ota, Yoshinori; Matsui, Tomohito; Kamiyama, Tomoya; Okazaki, Tatsuo  
PA Sony Corp., Japan; VTA K. K.  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF

DT Patent.

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003170166	A2	20030617	JP 2001-370755	20011204
PRAI	JP 2001-370755		20011204		

AB The electrolytic water prodn. app. comprises an electrolytic tank divided into an anode chamber for producing acidic water and a cathode chamber for producing alk. water; a power source; a storage tank for storing produced acidic water; a release line for discharging alk. water to the outside; a return mechanism for turning acidic water from the storage tank to the anode chamber; a 1st and a 2nd water supply lines for supplying raw water to the anode chamber and the cathode chamber, resp.; a joining part for joining the 1st and 2nd lines; and a control means for controlling the water current so as to disinfect the inside of the app. The inside of the app. is disinfected or subjected to antibacterial treatment by periodically repeating 1st and 2nd operation modes: and the 1st operation mode involves turning the acidic water back to the anode chamber from the storage tank and inverting the polarity of the anode and the cathode to disinfect the release line by discharging hypochlorous acid or hypochlorite-contg. water produced in the cathode chamber to the release line and the 2nd operation mode involves changing the polarity of the anode and the cathode to be normal and disinfecting the 1st and the 2nd water supply lines and the joining part by discharging hypochlorous acid or hypochlorite-contg. water produced in the anode chamber through these lines while joining the lines by the joining part. Even if the app. is not operated for a long duration, the app. itself can be disinfected and is capable of producing disinfected water.

IT Sterilization and Disinfection  
(electrolytic water prodn. app. and operation mode control for disinfection of the app.)

L12 ANSWER 29 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:454541 CAPLUS  
DN 139:43272  
TI Method and apparatus for producing negative and positive oxidative reductive potential (orp) water  
IN Sumita, Osao  
PA Micromed Laboratories, Inc., USA  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003048421	A1	20030612	WO 2002-US38861	20021205
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2001-338376P P 20011205

AB A method and app. for **electrolytically** producing oxidn. redn. potential **water** from aq. salt solns. for use in disinfection, **sterilization**, decontamination, **wound** cleansing. The app. includes an electrolysis unit having a three-compartment cell comprising a cathode chamber, an anode chamber, and a saline soln. chamber interposed between the anode and cathode chambers. Two communicating membranes sep. the three chambers. The center chamber includes a fluid flow inlet and outlet and contains insulative material that ensures direct voltage potential does not travel through the chamber. A supply of water flows through the cathode and anode chambers at the resp. sides of the saline chamber. Saline soln. flows through the center chamber, either by circulating a pre-prepd. aq. soln. contg. ionic species, or, alternatively, by circulating pure water or an aq. soln. of, e.g., aq. hydrogen chloride and ammonium hydroxide, over particulate insulative material coated with a solid electrolyte. Elec. current is provided to the communicating membranes sepg. the chambers, thus causing an electrolytic reaction that produces both oxidative (pos.) and reductive (neg.) ORP water.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A method and app. for **electrolytically** producing oxidn. redn. potential **water** from aq. salt solns. for use in disinfection, **sterilization**, decontamination, **wound** cleansing. The app. includes an electrolysis unit having a three-compartment cell comprising a cathode chamber, an anode chamber, and a saline soln. chamber interposed between the anode and cathode chambers. Two communicating membranes sep. the three chambers. The center chamber includes a fluid flow inlet and outlet and contains insulative material that ensures direct voltage potential does not travel through the chamber. A supply of water flows through the cathode and anode chambers at the resp. sides of the saline chamber. Saline soln. flows through the center chamber, either by circulating a pre-prepd. aq. soln. contg. ionic species, or, alternatively, by circulating pure water or an aq. soln. of, e.g., aq. hydrogen chloride and ammonium hydroxide, over particulate insulative material coated with a solid electrolyte. Elec. current is provided to the communicating membranes sepg. the chambers, thus causing an electrolytic reaction that produces both oxidative (pos.) and reductive (neg.) ORP water.

L12 ANSWER 34 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2003:371667 CAPLUS

DN 138:343498

TI Electrolyzed water for skin moisturization

IN Onodera, Ryosuke; Abe, Takeshi

PA Koken K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003137794	A2	20030514	JP 2001-340421	20011106
PRAI	JP 2001-340421		20011106		
AB	Chloride ion-contg. water is electrolyzed and acidic water generated in the anode side is heated to be used as a moisturizer. The acidic water has a strong and broad antimicrobial spectrum and is safe to use.				
IT	Antimicrobial agents <b>Electrolysis</b> (electrolyzed water for skin moisturization)				

L12 ANSWER 35 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:360892 CAPLUS  
DN 138:373706  
TI Apparatus for electrolytic water production having disinfection mechanism  
IN Hara, Yasuo  
PA Hoshizaki Electric Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003136059	A2	20030513	JP 2001-375970	20011210
PRAI	JP 2001-254831	A	20010824		
AB	The claimed app. is equipped with a pair of chambers in an electrolytic tank, tubes for supplying electrolytic water generated in each chamber, and a valve which is switched before stop operation for supplying generated acidic water to an alk. water-supplying tube via the valve for washing. The app. is prevented from propagation of bacteria in the alk. water-supplying tube.				
IT	<b>Sterilization and Disinfection</b> (app. for disinfecting alk. water-supplying tube with acidic water in electrolytic water prodn.)				

L12 ANSWER 48 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:160490 CAPLUS  
DN 138:186808  
TI Method and apparatus for sterilization of spore-forming microorganisms with electrolytic water  
IN Miyashita, Koichi; Suzuki, Tetsuya; Watanabe, Masumi  
PA Honda Motor Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003061610	A2	20030304	JP 2001-250762	20010821
PRAI	JP 2001-250762		20010821		
AB	Substances (e.g., spices) contg. spore-forming microorganisms are brought into contact with alk. water produced at the cathode side by electrolysis of aq. solns. contg. chlorides, stored under conditions suitable for sporulation of the microorganisms, and, within a predetd. time, brought into contact with acidic water produced at the anode side by the electrolysis for sterilization. Diagrams of the app. for prodn. of electrolytic water and sterilization are given. The growth of Pythium sp. on coriander was completely inhibited by the sterilization method without affecting the content of effective				

components of coriander.

TI Method and apparatus for sterilization of spore-forming microorganisms with electrolytic water

AB Substances (e.g., spices) contg. spore-forming microorganisms are brought into contact with alk. water produced at the cathode side by electrolysis of aq. solns. contg. chlorides, stored under conditions suitable for sporulation of the microorganisms, and, within a predetd. time, brought into contact with acidic water produced at the anode side by the electrolysis for sterilization. Diagrams of the app. for prodn. of electrolytic water and sterilization are given. The growth of Pythium sp. on coriander was completely inhibited by the sterilization method without affecting the content of effective components of coriander.

ST spore forming microorganism sterilization electrolytic water; Pythium control spice sterilization chloride water

IT Sterilization and Disinfection  
(app.; sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT Water purification  
(electrolysis, app.; sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT Water purification  
(electrolysis; sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT Bacteria (Eubacteria)

Microorganism  
(spore-forming; sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT Antibacterial agents  
Coriander  
Curcuma longa  
Food preservation  
Industrial process waters  
Pepper (spice)  
Pythium  
Spices  
Sporicides  
Sporulation  
Sterilization and Disinfection  
(sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT Chlorides, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
(sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT 7782-50-5P, Chlorine, biological studies 7790-92-3P, Hypochlorous acid  
RL: BSU (Biological study, unclassified); FFD (Food or feed use); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of water contg. chlorides)

IT 7647-14-5, Sodium chloride, processes  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)  
(sterilization of spore-forming microorganisms on spices with alk. and acidic waters produced by electrolysis of

water contg. chlorides)

L12 ANSWER 62 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:33126 CAPLUS  
DN 138:261863  
TI Reviews on ionized water by electrolysis and its generators  
AU Li, Meichao; Ma, Chunan; Zhang, Wenkui; Wu, Qing  
CS Department of Applied Chemistry, Zhejiang University of Technology,  
Hangzhou, 310032, Peop. Rep. China  
SO Huaxue Tongbao (2002), 65(12), 811-813  
CODEN: HHTPAU; ISSN: 0441-3776  
PB Huaxue Tongbao Bianjibu  
DT Journal; General Review  
LA Chinese  
AB A review with refs. concerning the prepn. principle and applications of  
ionized water is presented. Acidic ionized water with the effect of  
sterilization and germ-killer can be achieved from anode chamber, and alk.  
ionized water with the effect of health-care from cathode chamber. In  
addn., generators of ionized water are described briefly.  
IT **Sterilization and Disinfection**  
(application of ionized water prep'd. by electrolysis  
to)

L12 ANSWER 65 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:29668 CAPLUS  
DN 138:95175  
TI Electrolytic water production apparatus for producing water for  
disinfection  
IN Fujita, Masahiro; Miyaji, Masato  
PA Hoshizaki Electric Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003010851	A2	20030114	JP 2001-196537	20010628
PRAI	JP 2001-196537		20010628		

AB The electrolytic water prodn. app. comprises means of electrolyzing water,  
supplying concd. salt water, and the like and an elec. control circuit for  
controlling the starting and stopping the electrolytic water prodn.  
During electrolytic water prodn., the control circuit controls the water  
amt. pumped by a motor pump so as to keep elec. current const. between  
electrodes and if the elec. current between the electrodes is found lower  
than a prescribed lower limit during electrolysis, the circuit recognizes  
it as lack of concd. salt water supply and stops the electrolytic water  
prodn. For a prescribed time from starting of the electrolytic water  
prodn., the electrolytic water prodn. control is suspended, so that  
erroneous judgement can be avoided and vain interruption of electrolytic  
water prodn. is prevented.

IT **Water purification**  
(sterilization and disinfection, by electrolysis;  
electrolysis app. for producing water with desired  
chlorine concn.)

L12 ANSWER 66 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2003:29527 CAPLUS  
DN 138:78567  
TI Disinfection and cleansing of injured portions  
IN Kamiya, Yoshinori; Miyaji, Masato  
PA Hoshizaki Electric Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003010291	A2	20030114	JP 2001-198823	20010629
PRAI	JP 2001-198823		20010629		

AB The cleansing method comprises (1) washing with isotonic **electrolytic water** prep'd. by adjusting content of dissolved inorg. salts of strongly alk. **electrolytic water**, (2) disinfection with **bactericides**, and (3) washing again with the isotonic **electrolytic water**.  
The bactericides may be isotonic acidic water.

AB The cleansing method comprises (1) washing with isotonic **electrolytic water** prep'd. by adjusting content of dissolved inorg. salts of strongly alk. **electrolytic water**, (2) disinfection with **bactericides**, and (3) washing again with the isotonic **electrolytic water**.  
The bactericides may be isotonic acidic water.

L12 ANSWER 78 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:894780 CAPLUS

DN 137:388955

TI Aoparatus for hand washing capable of providing electrolytic acidic water

IN Onodera, Ryosuke; Abe, Takeshi

PA Koken K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002336145	A2	20021126	JP 2001-144054	20010515
PRAI	JP 2001-144054		20010515		

AB The hand washing app. comprises a cabinet; a strongly acidic water tank for storing strongly acidic water obtained by electrolyzing water contg. a water-sol. inorg. substance and a wastewater tank both housed in the cabinet; a shower nozzle and a sink, whose wastewater discharge port is connected to the wastewater tank, on the opposite to each other in the cabinet; an opened portion of the cabinet formed between the discharge port of the shower nozzle and the sink; and a heater installed between the inlet side of the shower nozzle and the acidic water tank. Hands and fingers can be washed and disinfected with acidic warm water without using any conventional disinfectant.

IT Sterilization and Disinfection

(hand washing app. for providing strongly acidic **water** by **electrolysis** for hand washing)

L12 ANSWER 101 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:563775 CAPLUS

DN 137:114170

TI Manufacture of strong acidic ionized antimicrobial water containing large amount of hypochlorous acid, and electrolyzer for it

IN Shimofusa, Toshiro; Nishitani, Noritaka

PA Asahipretech Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002210466	A2	20020730	JP 2001-7508	20010116

PRAI JP 2001-7508 20010116

AB Water contg. NaCl or KCl is supplied to an anode compartment of an electrolyzer which is constituted by an anode and cathode compartments and a cation exchange membrane between them to obtain strong acidic ionized antimicrobial water contg. a large amt. of hypochlorous acid, wherein the concn. of alkali in the catholyte is kept at high level so as to decrease the discharge amt. of the aq. alkali soln. which needs to be treated. The method does not affect the current efficiency nor the amt. of the obtained strong acidic ionized water.

IT Water purification

(electrolysis; manuf. of strong acidic ionized antimicrobial water contg. hypochlorous acid and electrolyzer for it)

L12 ANSWER 102 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:547112 CAPLUS

DN 137:98588

TI Sterilizing cleaning water and its manufacture from strongly acidic and strongly alk. electrolyzed waters

IN Achinami, Nobuo; Nishio, Tomoyuki

PA Hoshizaki Electric Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002205067	A2	20020723	JP 2001-5162	20010112
PRAI	JP 2001-5162		20010112		

AB Warm and weakly acidic cleaning water with pH 3.0-7.5 and its temp. in a range between room temp. and 70.degree. is manufd. by heating a strongly alk. electrolyzed water (obtained by membrane electrolysis of an aq. soln. of chloride salts) at 1toreq.70.degree., followed by mixing with a strongly acidic electrolyzed water (obtained by membrane electrolysis of an aq. soln. of chloride salts). The cleaning water shows high sterilizing power.

IT Electrolysis

(manuf. of sterilizing cleaning water by mixing strongly acidic and strongly alk. electrolyzed waters)

L12 ANSWER 103 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:513001 CAPLUS

DN 137:83322

TI Electrolytic apparatus for producing electrolytic water for disinfection

IN Kawai, Yu; Shirai, Shigeru; Kunimoto, Keijiro

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002192158	A2	20020710	JP 2000-394322	20001226
PRAI	JP 2000-394322		20001226		

AB The electrolytic app. comprises a water supply means; an electrolytic means comprising an electrolytic tank for producing electrolytic water; an electrolytic substance supply means connected to the electrolytic tank; a means for taking out the produced water; a monitoring means for monitoring the amt. of the taken out electrolytic water; and a control means for repeating prodn. and discharge of the electrolytic water until the taken amt. reaches a prescribed amt. Necessary amt. of electrolytic water to be used for disinfection can automatically be produced.

IT **Sterilization and Disinfection**  
(electrolytic water for; electrolytic  
water prodn. app. for continuous electrolytic  
water prodn. for disinfection)

L12 ANSWER 136 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:910063 CAPLUS

DN 136:42489

TI Electrolyzers for preparation of sterilizing cleaning water

IN Nakamura, Shinichi; Fukuzuka, Kunihiro; Nagayoshi, Kenji; Miyashita, Masanori

PA Omega Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001347270	A2	20011218	JP 2000-168578	20000606
PRAI	JP 2000-168578		20000606		

AB The title electrolyzers are composed of concentric alternate cylindrical anodes and cathodes, whereas the central anode has a long hole in the axial direction, and is made of ferrite and filled with low-m.p. metals or Hg for contact with metal terminal. They are used for electrolysis of water contg. halogen ions to give sterilizing cleaning water.

AB The title electrolyzers are composed of concentric alternate cylindrical anodes and cathodes, whereas the central anode has a long hole in the axial direction, and is made of ferrite and filled with low-m.p. metals or Hg for contact with metal terminal. They are used for electrolysis of water contg. halogen ions to give sterilizing cleaning water.

L12 ANSWER 137 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:910010 CAPLUS

DN 136:42938

TI Disinfection device for generating chlorine-containing electrolytic water

IN Okeda, Takemi; Kunimoto, Keijiro; Matsumoto, Tomohide; Nakamura, Kazushige

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001346860	A2	20011218	JP 2000-175402	20000612
PRAI	JP 2000-175402		20000612		

AB This invention relates to an app. for disinfecting, deodorizing, and cleaning food-handling facilities. The app. comprises an electrode-contg. electrolytic cell, a container for NaCl soln., and a container for washing solns., which are connected by pipes with valves. The app. can be installed under the kitchen sink to disinfect the drainage.

IT **Sterilization and Disinfection**

(app.; disinfection device for generating chlorine-contg.  
electrolytic water)

L12 ANSWER 138 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:910009 CAPLUS

DN 136:42937

TI Disinfection device for generating chlorine-containing electrolytic water

IN Okeda, Takemi; Kunimoto, Keijiro; Matsumoto, Tomohide; Nakamura, Kazushige

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001346859	A2	20011218	JP 2000-175401	20000612
PRAI	JP 2000-175401		20000612		

AB This invention relates to an app. for disinfecting, deodorizing, and cleaning food-handling facilities. The app. comprises an electrode-contg. electrolytic cell, a container for NaCl soln., and a container for washing solns., which are connected by pipes with valves. The washing solns. may contain surfactants, fat-decompg. agents, and hot water to remove the deposited fats and other foreign materials. The app. can be installed under the kitchen sink to disinfect the drainage.

IT Sterilization and Disinfection

(app.; disinfection device for generating chlorine-contg.  
electrolytic water)

L12 ANSWER 195 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 2000:673890 CAPLUS

DN 133:256501

TI Solid agent in formation of **electrolytic water** for  
sterilization or disinfection of medical goods

IN Hoshino, Masaaki; Ishibashi, Nobuhiro; Sasaki, Masatomi

PA Terumo Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000263047	A2	20000926	JP 1999-74701	19990319
PRAI	JP 1999-74701		19990319		

AB The solid agent comprises an alkali metal chloride (esp., NaCl) and .gt;one org. acid chosen from succinic acid, malic acid, and tartaric acid. The solid agent present at 0.01-1.0 wt.%. The wt. ratio of NaCl to succinic acid is preferably 100:(0.1-40,000). The wt. ratio of NaCl to malic acid is preferably 100:(0.1-2,000). The wt. ratio of NaCl to tartaric acid is preferably 100:(0.1-1,500).

TI Solid agent in formation of **electrolytic water** for  
sterilization or disinfection of medical goods

ST solid agent **electrolytic water** formation  
sterilization disinfection

IT Water purification

(disinfection; solid agent in formation of **electrolytic**  
water for sterilization or disinfection of medical  
goods)

IT Water purification

(electrolysis; solid agent in formation of  
**electrolytic water** for sterilization or  
disinfection of medical goods)

IT Medical goods

(solid agent in formation of **electrolytic water** for  
sterilization or disinfection of medical goods)

IT 87-69-4, Tartaric acid, processes 110-15-6, Succinic acid, processes  
6915-15-7, Malic acid

RL: PEP (Physical, engineering or chemical process); TEM (Technical or  
engineered material use); PROC (Process); USES (Uses)

(tablets with sodium chloride; solid agent in formation of  
**electrolytic water** for sterilization or  
disinfection of medical goods)

IT 7647-14-5, Sodium chloride, processes  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or  
engineered material use); PROC (Process); USES (Uses)  
(tablets with succinic acid or malic acid or tartaric acid; solid agent  
in formation of **electrolytic water** for  
**sterilization** or disinfection of medical goods)

L12 ANSWER 219 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:218458 CAPLUS  
DN 132:255718  
TI Electrolysis apparatus for producing water for disinfection  
IN Tabata, Kenji; Kiyohara, Masakatsu; Aso, Yuji; Shono, Nobuhiro; Nishimura,  
Katsumi  
PA Toto Kiki K. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000093966	A2	20000404	JP 1999-195078	19990708
PRAI	JP 1998-221050		19980721		

AB This electrolysis app. comprises an electrolytic tank divided into  
.gtoreq.2 chambers by .gtoreq.1 diaphragms: and .gtoreq.1 chambers are  
made to be batch type chambers detachable from the main body. The app. is  
made potable. Ion exchangers and microfilters may be employed for the  
diaphragms. Without vainly discharging water, ion water with desired  
properties for washing and disinfection can be produced by adding an  
electrolytic substance, e.g. NaCl.

IT Sterilization and Disinfection

Washing

(ion water for; ion water prodn.  
electrolysis app. with portable structure for producing desired  
ion water)

L12 ANSWER 222 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 2000:197702 CAPLUS  
DN 132:227104  
TI Highly oxidative water and highly reductive water production and apparatus  
IN Hayakawa, Hideo  
PA Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000084560	A2	20000328	JP 1998-259779	19980914
PRAI	JP 1998-259779		19980914		

AB This app. for producing highly oxidative water and highly reductive water  
comprises a container, a pair of electrodes, an earth electrode, a  
semi-permeable member parting the pair of electrodes from the earth  
electrode, and means for applying high frequency a.c. in a controlled  
manner. Highly oxidative water and highly reductive water are produced  
resp. in the region where the pair of electrodes are installed and in the  
earth electrode installation region by applying high frequency a.c. to a  
pair of electrodes while immersing the electrodes in fresh water mixed  
with an acid, NaCl, rock salt, or a mineral salt or seawater mixed with an  
acid. Highly oxidative water having efficient disinfecting and  
insecticidal functions and highly reductive water efficient for removing  
grease and preventing scaling can simultaneously and sep. produced.

IT Insecticides

Sterilization and Disinfection  
(oxidative water for; water electrolysis  
app. for oxidative water and reductive water prodn.)

L12 ANSWER 235 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1999:633648 CAPLUS  
DN 131:249497  
TI Electrode for electrolyzing dilute aqueous sodium chloride solution for forming strongly acidic water having a strong sterilizing power  
IN Kogiso, Minoru; Ushikyu, Eisaku  
PA Tanaka Noble Metal Industrial Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11269687	A2	19991005	JP 1998-73730	19980323
PRAI JP 1998-73730		19980323		

AB The electrode is prep'd. by successively forming a 0.1-5.mu.m thick Pt layer, 0.1-5.mu.m thick Ir layer, and 0.1-0.5.mu.m thick Ir oxide layer on a Ti substrate. The chlorine generation efficiency is high, the service life of the electrode is lengthened, and the consumption of the electrode at high c.d. is suppressed.  
ST electrode electrolysis sodium chloride acidic water  
strong sterilizing power

L12 ANSWER 247 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1999:417833 CAPLUS  
DN 131:78098  
TI Apparatus for circulation and purification of bath water  
IN Ujiie, Yoshihiko; Nagata, Koji; Inoue, Takahiro; Amaki, Tsutomu; Hasegawa, Akitoshi  
PA Matsushita Electric Works, Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11179364	A2	19990706	JP 1997-353849	19971222
PRAI JP 1997-353849		19971222		

AB The app. comprises a water-circulating path, a water-circulation pump, a filter tank for filtrating bath water to remove pollutants, and a bypass water, whereas the bypass is equipped with a separator-free electrolysis tank (contg. a pair of electrodes), a salt-dissolving tank, and a valve. Opening and closing of the valve is controlled by (1) measuring a voltage between the electrodes when a const. current is applied, and (2) comparing the value with a previously detd. prescribed value. Alternatively, the current between the electrodes is measured when a const. voltage is applied. The operation method enables retaining Cl- concn. in the circulating bath water to be const.  
ST bath water circulation purifn electrolysis app; salt electrolysis bath water purifn circulation; sterilization bath water circulation purifn electrolysis

L12 ANSWER 319 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1997:412322 CAPLUS  
DN 127:99217  
TI Strongly acidic water by electrolysis of water and uses as disinfectant  
AU Kubota, Shoji  
CS Research Society for Water Design, Japan

SO Shokuhin Kogyo (1997), 40(10), 18-27  
CODEN: SKGYAW; ISSN: 0559-8990  
PB Korin  
DT Journal; General Review  
LA Japanese  
AB A review, with 9 refs., on the definitions of rinsing, disinfection and sterilization, disinfection resistance of microorganisms, spreading of O-157 bacteria, sterilization, sterilizing agent, sterilization mechanism, ideal sterilizing agent for water, and the uses of strongly acidic water and disinfectant for water.  
IT Disinfectants  
Drinking waters  
    **Sterilization and Disinfection**  
    (strongly acidic water by electrolysis of water and uses as disinfectant)  
  
L12 ANSWER 330 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1997:53208 CAPLUS  
DN 126:86972  
TI Virucidal and bactericidal effects of electrolyzed oxidizing water: comparison of disinfectant effect with electrolyzed oxidizing water and hypochlorous acid  
AU Shimizu, Yoshinobu; Sugawara, Hiroko  
CS Dep. Oral Bacteriol., Tohoku Univ. Sch. Dentistry, Sendai, 980-77, Japan  
SO Shika Kiso Igakkai Zasshi (1996), 38(5), 564-571  
CODEN: SHKKAN; ISSN: 0385-0137  
PB Shika Kiso Igakkai  
DT Journal  
LA English  
AB Electrolyzed oxidizing (EO) water, synthesized by electrolysis of tap water and NaCl (0.05%) with a diaphragm between the cathode and anode and collected from the anode side, exhibited strong virucidal and bactericidal activity. The oxidn.-redn. potential (ORP) of EO water in a pH of .1toreq.2.70 was .gtoreq.1100 mV. When NaOCl was mixed with HCl, HClO was synthesized (NaClO + HCl .fwdarw. HClO + NaCl) resulting in an ORP of .gtoreq.1100 mV at low pH. The min. microbicidal concn. (MMC) of Cl (mg/L) showing virucidal and bactericidal effects in EO water was compared with that of the synthesized HClO using herpes simplex virus type 1, poliovirus, and Enterococcus faecalis. The MMC of Cl in EO water was less than that in HClO. The virucidal and bactericidal effects of EO water differ from those of HClO only because substances contained in EO water, such as Cl-, ClO2, H2O2, OH+ (hydroxyl radical), etc., seem to synergistically support such activity by balancing in a competitive state in acidic conditions.  
AB Electrolyzed oxidizing (EO) water, synthesized by electrolysis of tap water and NaCl (0.05%) with a diaphragm between the cathode and anode and collected from the anode side, exhibited strong virucidal and bactericidal activity. The oxidn.-redn. potential (ORP) of EO water in a pH of .1toreq.2.70 was .gtoreq.1100 mV. When NaOCl was mixed with HCl, HClO was synthesized (NaClO + HCl .fwdarw. HClO + NaCl) resulting in an ORP of .gtoreq.1100 mV at low pH. The min. microbicidal concn. (MMC) of Cl (mg/L) showing virucidal and bactericidal effects in EO water was compared with that of the synthesized HClO using herpes simplex virus type 1, poliovirus, and Enterococcus faecalis. The MMC of Cl in EO water was less than that in HClO. The virucidal and bactericidal effects of EO water differ from those of HClO only because substances contained in EO water, such as Cl-, ClO2, H2O2, OH+ (hydroxyl radical), etc., seem to synergistically support such activity by balancing in a competitive state in acidic conditions.  
  
L12 ANSWER 381 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN  
AN 1993:240409 CAPLUS  
DN 118:240409  
TI Method and apparatus for sterilization of swimming pool

water by electrolytically generated ions  
IN Nogueira, Haroldo Barbosa Gurge  
PA Brazil  
SO Braz. Pedido PI, 19 pp.  
CODEN: BPXXDX  
DT Patent  
LA Portuguese

FAN CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BR 9101575	A	19921124	BR 1991-1575	19910418
PRAI	BR 1991-1575		19910418		

AB Swimming pool water is sterilized by an electrolytic process and app. The app. is comprised of a U shaped cell made of PVC with inlet and outlet sidearms, 2 Cu electrodes, and a voltage control and regulation system. The water passed through the cell and is sterilized by the electrolytically generated ions produced in the cell.

TI Method and apparatus for sterilization of swimming pool water by electrolytically generated ions

AB Swimming pool water is sterilized by an electrolytic process and app. The app. is comprised of a U shaped cell made of PVC with inlet and outlet sidearms, 2 Cu electrodes, and a voltage control and regulation system. The water passed through the cell and is sterilized by the electrolytically generated ions produced in the cell.

ST swimming pool water sterilization electrolysis

L12 ANSWER 430 OF 917 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1917:10833 CAPLUS

DN 11:10833

OREF 11:2246h-i,2247a-b

TI Report on the use of sodium hypochlorite prepared by the electrolysis of sea water for disinfecting and antiseptic purposes on H. M. H. S. "Aquitania"

AU Dakin, H. D.; Carlisle, H. G.

SO J. Royal Army Med. Corps (1916), 26, 209-27

DT Journal

LA Unavailable

AB With current of 60 to 75 amp. at 110 v., 10 min. electrolysis produces a soln. containing a little less than 4 p. p. 1000 of NaClO; 5 min. electrolysis gives 2-2.7 parts per 1000 with rise of temp. of 7-8.degree.. The latter period is recommended as distinctly advantageous. A daily or more frequent reversal of current keeps the carbon plates free from Mg(OH)2. With less than 60 amp. the yield of hypochlorite is lower. The electrolyzed soln. is clear, bright and free from sediment except for a few particles of suspended carbon. On a ship the size of the "Aquitania," the cost of the cell will be saved in a trip of 3 weeks by the replacement of coal-tar disinfectants by the hypochlorite. The optimum concn. of the hypochlorite for disinfecting purposes in wards, etc., is 1 per 1000. For purification of drinking water 5 gals. of 10 min. electrolyzed sea water were added to 87 tons of water. All traces of Cl disappeared after 3 or 4 hrs. The electrolyzed sea water was found to be an excellent antiseptic for surgical use.

TI Report on the use of sodium hypochlorite prepared by the electrolysis of sea water for disinfecting and antiseptic purposes on H. M. H. S. "Aquitania"

L12 ANSWER 447 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

AN 2003-461229 [44] WPIDS

DNC C2003-123141

TI Lotion or cosmetics for skin, comprises reduced water having preset oxidation reduction potential which is obtained by electrolyzing pure water using electrolytic cell having three

chambers.

DC D21  
PA (KUBO-I) KUBOTA M; (NATU-N) NATURAL KK  
CYC 1  
PI JP 2002348208 A 20021204 (200344)\* 5p  
ADT JP 2002348208 A JP 2001-156837 20010525  
PRAI JP 2001-156837 20010525  
AB JP2002348208 A UPAB: 20030710

NOVELTY - A lotion or cosmetics comprises reduced water obtained by electrolyzing pure water using an electrolytic cell having three chambers. The pH of the water during electrolysis is 10.5-12.5. The reduced water having an oxidation-reduction potential of -700 to -900 mV (vs. Ag/AgCl), is used as lotion or raw material for cosmetics.

USE - As skin cosmetics for reducing liver spots, freckles due to UV radiation and aging.

ADVANTAGE - The reduced water supplies electron to the skin, thereby prevents oxidation of skin.

DESCRIPTION OF DRAWING(S) - The figure shows the drawing of electrolytic cell having three chambers for producing reduced water.

Electrolytic cell having three chambers A

Dwg.1/6

TI Lotion or cosmetics for **skin**, comprises reduced water having preset oxidation reduction potential which is obtained by electrolyzing pure **water** using **electrolytic** cell having three chambers.  
TT TT: LOTION COSMETIC **SKIN** COMPRIZE REDUCE WATER PRESET OXIDATION REDUCE POTENTIAL OBTAIN PURE **WATER ELECTROLYTIC** CELL THREE CHAMBER.

L12 ANSWER 553 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2000-231496 [20] WPIDS  
DNN N2000-174661 DNC C2000-070416  
TI Hand-washing method for microbe elimination and hygienic purposes - involves washing hand with water having predetermined residual chlorine content flowing at specific rate within specific time.  
DC D15 D22 P34 Q42  
PA (TTOC) TOTO LTD  
CYC 1  
PI JP 2000051328 A 20000222 (200020)\* 4p  
ADT JP 2000051328 A JP 1999-115524 19990422  
PRAI JP 1998-167692 19980601  
AB JP2000051328 A UPAB: 20000426

NOVELTY - Hand-washing method involves washing the hand in water flowing at the rate of 2 liters/minute or more for 10-15 seconds. The water has residual chlorine content of 40-100 ppm.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for hand-washing apparatus which consists of a solenoid valve (111) and sterilized water formation unit (191) in which electrolysis of water containing sodium chloride occurs to generate chlorine. A delivery tube is provided for discharging water at the rate of 2 liters/minute. A control unit is arranged for controlling residual chlorine concentration and controlling hand washing time.

USE - For elimination of microbes adhered to fingers for toilet use and medical speciality.

ADVANTAGE - Washing time is considerably reduced and the method is cost-effective. Roughening of hand is reduced.

DESCRIPTION OF DRAWING(S) - The figure shows the hand-washing apparatus. (111) Solenoid valve; (120) Electrolytic cell; (121) Anode; (122) Cathode.

Dwg.1/1

AB . . .  
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for hand-washing apparatus which consists of a solenoid valve (111) and sterilized water formation unit (191) in which

electrolysis of water containing sodium chloride occurs to generate chlorine. A delivery tube is provided for discharging water at the rate of 2. . .

L12 ANSWER 554 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 2000-193421 [17] WPIDS  
DNC C2000-059907  
TI Method and device for **electrolysis of salt water** for manufacturing strongly acidic **antiseptic** solution - NoAbstract.  
DC D15 D22 J03  
IN JIH, J G  
PA (JIHJ-I) JIH J G  
CYC 1  
PI KR 99012843 A 19990225 (200017)\*  
ADT KR 99012843 A KR 1997-36395 19970725  
PRAI KR 1997-36395 19970725  
TI Method and device for **electrolysis of salt water** for manufacturing strongly acidic **antiseptic** solution - NoAbstract.  
TT TT: METHOD DEVICE **ELECTROLYTIC SALT WATER MANUFACTURE**  
STRONG ACIDIC **ANTISEPTIC** SOLUTION NOABSTRACT.

L12 ANSWER 643 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1998-421515 [36] WPIDS  
DNC C1998-126699  
TI **Electrolysis water** formation apparatus for skin care, table ware washing - has DC power supply which applies predetermined voltage between anode plate and cathode plate which are arranged on respective oppositely arranged flat wall surfaces.  
DC D15 J03  
PA (TTOC) TOTO LTD  
CYC 1  
PI JP 10174971 A 19980630 (199836)\* 6p  
ADT JP 10174971 A JP 1996-338808 19961219  
PRAI JP 1996-338808 19961219  
AB JP 10174971 A UPAB: 19980911  
The apparatus includes a pair of oppositely arranged flat wall surfaces between which a first flow path is formed. An anode and cathode plates are arranged on either wall surfaces. A second flow path is connected to the first flow path through an aperture formed on the anode plate wall surface. A third flow path is connected to the downstream end of the first flow path. An electrolytic bath is connected to the upstream end of the first flow path. A salt solution tank is connected to a fourth flow path of the electrolytic bath. A pair of electrolysis water reservoir tanks are connected to the respective second and third flow paths. A DC power supply applies a predetermined voltage between the anode plate and the cathode plate.

USE - The apparatus is used for skin care and tableware washing.

ADVANTAGE - The apparatus simplifies structure and avoids need for force feeding units.

Dwg.1/5

TI **Electrolysis water** formation apparatus for skin care, table ware washing - has DC power supply which applies predetermined voltage between anode plate and cathode plate which. . .  
TT TT: **ELECTROLYTIC WATER FORMATION APPARATUS**  
SKIN CARE TABLE WARE WASHING DC POWER SUPPLY APPLY  
PREDETERMINED VOLTAGE ANODE PLATE CATHODE PLATE ARRANGE RESPECTIVE  
OPPOSED ARRANGE FLAT WALL. . .

L12 ANSWER 790 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN  
AN 1992-147911 [18] WPIDS  
DNC C1992-068513  
TI Water steriliser producing pure water fit for human skin - has ionised water generator and metal ion generator in source water supply pipe.  
DC D15 D22

PA (MATW) MATSUSHITA ELECTRIC WORKS LTD

CYC 1

PI JP 04090886 A 19920324 (199218)\* 4p

ADT JP 04090886 A JP 1990-207260 19900803

PRAI JP 1990-207260 19900803

AB JP 04090886 A UPAB: 19931006

**Steriliser** has an ionised water generator and a metal ion generator in the source water supplying piping. Ionised water generator produces alkaline and acidic water by **electrolysis** and **electro-osmosis**. Metal ion generator produces metal ions by dissolution.

Ag and Cu electrodes are used for the metal ion generator; the polarity of Ag and Cu electrodes can be switched, so that desired metal ions of Ag or Cu can be dissolved.

**USE/ADVANTAGE** - Used to sterilise water by the action of acidic ions and metal ions. Pure water fit for human skin can be obtd..

In an example, an ionising water generator had a cathode and an anode room; alkaline water was given in cathode chamber and acidic water was in anode chamber. Acidic water was introduced into metal ion generator where Ag or Cu ions are dissolved into the water from Ag or Cu electrodes.

(0/2)

0/2

AB JP 04090886 UPAB: 19931006

**Steriliser** has an ionised water generator and a metal ion generator in the source water supplying piping. Ionised water generator produces alkaline and acidic water by **electrolysis** and **electro-osmosis**. Metal ion generator produces metal ions by dissolution.

Ag and Cu electrodes are used for the metal.

L12 ANSWER 808 OF 917 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

AN 1990-343163 [46] WPIDS

DNN N1990-262424 DNC C1990-148755

TI Treatment of acne, boils and similar skin disorders - by using an iontophoresis device with applicator and dispersive electrodes positioning applicator electrode over affected skin.

DC B07 D22 P34 S05

IN JACOBSEN, S C; PETELENZ, T J; STEPHEN, R L

PA (IOME-N) IOMED INC

CYC 14

PI EP 397178 A 19901114 (199046)\*

R: AT BE CH DE ES FR GB GR IT LI NL SE

US 4979938 A 19901225 (199103)

JP 03073169 A 19910328 (199119)

ADT EP 397178 A EP 1990-108838 19900510; US 4979938 A US 1989-350227 19890511; JP 03073169 A JP 1990-122780 19900511

PRAI US 1989-350227 19890511

AB EP 397178 A UPAB: 19930928

A method for treating acne, furuncles and similar skin disorders characterised by blocked channels in the skin comprises: providing an iontophoresis device which includes an applicator electrode, a dispersive electrode and a voltage source for providing a voltage of negative polarity to the applicator electrode and a voltage of positive polarity to the dispersive electrode; supplying an **electrolytic**, **water-based soln.** to the applicator electrode; placing the applicator electrode and dispersive electrode on the **skin** of the person to be treated so that the applicator electrode is positioned over the affected skin; operating the iontophoresis device so that a negative current is supplied to the applicator electrode and a positive current to the dispersive electrode to produce hydroxyl ions in the soln. which are caused to move into the channels of the affected skin; and continuing the operation of the device for sufficient time to disrupt the blockage of the channels in the affected skin and establish drainage from the channels.

**USE/ADVANTAGE** - The unwanted by prods. of iontophoresis is used for treating skin disorders. The method produces no harmful side effects. The

**sterilizing** water, etc., and is carried out at solid electrodes at a flow rate of sea water between the electrodes of 1.5-10 m/sec. and a current density at the cathode of 1000-5000 amp./m<sup>2</sup>,

The method prevents pptn. of insol. products on the cathode surface, and their accumulation in the electrolyzer in amts. which could disrupt the process.

AB SU 539093 UPAB: 19930901

Prodn. of chlorine by **electrolysis** of sea water is widely used in ship building, marine construction, protection from overgrowths in water circulation systems, degreasing of waste water, **sterilizing** water, etc., and is carried out at solid electrodes at a flow rate of sea water between the electrodes of . . .

AN 1999:199567 CAPLUS

DN 130:242367

TI Method for sterilization with diluted electrolyzed acidic solution

IN Sato, Fumitake; Yanagihara, Noriyuki; Naito, Tatsuya

PA Mizu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11076383	A2	19990323	JP 1997-264977	19970911
PRAI	JP 1997-264977		19970911		

AB The invention provides a low cost and simplified method for sterilizing hands, medical goods, clothes, dishes, etc., with an 10-40 times dild. electrolyzed acidic soln., wherein the original electrolyzed acidic soln. has pH of .ltoreq. 2.5 and an ORP (oxidn.-redn. potential) of .gtoreq. 110 mV. A 0.1 % NaCl soln. (12 L) was electrolyzed at 20 A for 1 h, and dild. 20 times with water after adding 0.3 % HCl. The soln (pH = 2.96, ORP = 1144 mV) showed sterilizing effect against black-koji mold and bacterial spores in .ltoreq. 30 s.

AN 1997:396756 CAPLUS  
DN 127:70661  
TI Effect of functional water on infectious skin ulceration  
AU Inagawa, Kiichi; Moriguchi, Takahiko  
CS Keisei Gekagaku Kyoshitsu, Kawasaki Ika Daigaku, Kurashiki, 701-01, Japan  
SO Igaku no Ayumi (1997), 181(4), 266-267  
CODEN: IGAYAY; ISSN: 0039-2359  
PB Ishiyaku  
DT Journal; General Review  
LA Japanese  
AB A review with 3 refs., on treatment of infectious skin  
ulceration with strong acidic electrolysis soln.  
(functional water).

AN 1992-156106 [19] WPIDS  
DNC C1992-071931  
TI Prodn. of sterilised water contg. hypochlorous acid - electrolysing so both solns. in anode and cathode chambers are mixed to give prod. of specified pH.  
DC D15 E36 J03  
PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK  
CYC 1  
PI JP 04094788 A 19920326 (199219)\* 4p  
JP 2892121 B2 19990517 (199925) 5p  
ADT JP 04094788 A JP 1990-213279 19900810; JP 2892121 B2 JP 1990-213279 19900810  
FDT JP 2892121 B2 Previous Publ. JP 04094788  
PRAI JP 1990-213279 19900810  
AB JP 04094788 A UPAB: 19931006  
Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber, and HCl to the cathode chamber. Water in the tank is electrolysed so that pH of the electrolysed water in the anode chamber is 3-7 and that in the cathode chamber is 4-7. Both solns. formed in the anode and cathode chambers are mixed to obtain electrolysed water with pH of almost 3-7.  
ADVANTAGE - Sterilised water contg. HClO having strong sterilising power at low concn. is safely and effectively produced without generating Cl<sub>2</sub>. Electric power used for the electrolysis is saved. (0/2)  
0/2

AN 1992-156105 [19] WPIIDS  
DNC C1992-071930  
TI Prodn. of sterilised water contg. hypochlorous acid - by electrolysing water in tank to give specified pH of hypochlorous soln. in anode chamber.  
DC D15 E36 J03  
PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK  
CYC 1  
PI JP 04094787 A 19920326 (199219)\* 9p  
JP 2892120 B2 19990517 (199925) 9p  
ADT JP 04094787 A JP 1990-213278 19900810; JP 2892120 B2 JP 1990-213278 19900810  
FDT JP 2892120 B2 Previous Publ. JP 04094787  
PRAI JP 1990-213278 19900810  
AB JP 04094787 A UPAB: 19931006  
Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber and HCl into the cathode chamber. Water in the tank is electrolysed so that pH of hypochlorous aq. soln. formed in the anode chamber is 3-7.  
Electrolysed water discharged from the cathode chamber is pref. fed back to the electrolysing tank through a supplying pipe to the water supplying part of the anode chamber. Water in the electrolysing tank may be electrolysed so that pH in the anode chamber is 3-7 and that in the cathode chamber is 4-12 and both solns. may be mixed to obtain electrolysed water with pH of almost 3-7.  
ADVANTAGE - Sterilised water is produced in high efficiency. Electric power used for the electrolysis is saved as pH in the anode chamber is kept at 3-7 at lower electrolysing voltage. Cl<sub>2</sub> gas does not generate during the electrolysis. (0/0)  
0/0

AN 1997:53208 CAPLUS  
DN 126:86972  
TI Virucidal and bactericidal effects of electrolyzed oxidizing water: comparison of disinfectant effect with electrolyzed oxidizing water and hypochlorous acid  
AU Shimizu, Yoshinobu; Sugawara, Hiroko  
CS Dep. Oral Bacteriol., Tohoku Univ. Sch. Dentistry, Sendai, 980-77, Japan  
SO Shika Kiso Igakkai Zasshi (1996), 38(5), 564-571  
CODEN: SHKKAN; ISSN: 0385-0137  
PB Shika Kiso Igakkai  
DT Journal  
LA English  
AB Electrolyzed oxidizing (EO) water, synthesized by electrolysis of tap water and NaCl (0.05%) with a diaphragm between the cathode and anode and collected from the anode side, exhibited strong virucidal and bactericidal activity. The oxidn.-redn. potential (ORP) of EO water in a pH of .1toreq.2.70 was .gtoreq.1100 mV. When NaOCl was mixed with HCl, HClO was synthesized (NaClO + HCl .fwdarw. HClO + NaCl) resulting in an ORP of .gtoreq.1100 mV at low pH. The min. microbicidal concn. (MMC) of Cl (mg/L) showing virucidal and bactericidal effects in EO water was compared with that of the synthesized HClO using herpes simplex virus type 1, poliovirus, and Enterococcus faecalis. The MMC of Cl in EO water was less than that in HClO. The virucidal and bactericidal effects of EO water differ from those of HClO only because substances contained in EO water, such as Cl-, ClO<sub>2</sub>, H<sub>2</sub>O<sub>2</sub>, OH<sup>+</sup> (hydroxyl radical), etc., seem to synergistically support such activity by balancing in a competitive state in acidic conditions.

AN 1999:162952 BIOSIS  
DN PREV199900162952  
TI Evaluation of microbicidal activity of a new disinfectant:  
    **Sterilox(R)** 2500 against *Clostridium difficile* spores,  
    *Helicobacter pylori*, vancomycin resistant *Enterococcus* species, *Candida*  
    *albicans* and several *Mycobacterium* species.  
AU Shetty, N. (1); Srinivasan, S.; Holton, J.; Ridgway, G. L.  
CS (1) Dep. Clin. Microbiol., Univ. Coll. London Hosp., Out Patient Build.,  
    III Floor, Grafton Way, London WC1E 6DB UK  
SO Journal of Hospital Infection, (Feb., 1999) Vol. 41, No. 2, pp. 101-105.  
    ISSN: 0195-6701.  
DT Article  
LA English  
AB The microbicidal activity of a new disinfectant **Sterilox(R)**, a  
    super-oxidized water containing a mixture of oxidizing substances, was  
    tested against *Clostridium difficile* spores, *Helicobacter pylori*,  
    vancomycin resistant *Enterococcus* species, *Candida albicans* and several  
    *Mycobacterium* species using membrane filters. All tests were performed in  
    duplicate with and without added horse serum at 1% and 5% v/v. Distilled  
    water, 0.35% peracetic acid (Nu-Cidex(R)) and 2% glutaraldehyde were  
    included as controls. **Sterilox**: spore suspension (9:1 v/v)  
    achieved log<sub>10</sub> kill of >5 with 5% horse serum in 2 min against *H. pylori*,  
    vancomycin resistant *Enterococcus* species, *C. albicans* and four atypical  
    *Mycobacterium* species: *M. avium*, *M. chelonei*, *M. xenopi* and *M. smegmatis*.  
    Sporicidal activity of **Sterilox** against *Clostridium difficile*  
    was markedly diminished in the presence of 5% horse serum.  
    **Sterilox** may be an effective alternative in endoscopy units, as it  
    is a potent microbicidal agent and the manufacturer claims it is not  
    corrosive to metal and is nontoxic to biological tissues.

AN 1999:126678 BIOSIS  
DN PREV199900126678  
TI Evaluation of the antimicrobial activity of a new super-oxidized water,  
**Sterilox(R)**, for the disinfection of endoscopes.  
AU Selkon, J. B.; Babb, J. R.; Morris, R. (1)  
CS (1) 142 Hinckley Road, Barwell LE9 8DN UK  
SO Journal of Hospital Infection, (Jan., 1999) Vol. 41, No. 1, pp. 59-70.  
ISSN: 0195-6701.  
DT Article  
LA English  
AB The antimicrobial activity of a new super-oxidized water, **Sterilox** (R), has been tested against *Mycobacterium tuberculosis*, *Mycobacterium avium-intracellulare*, *Mycobacterium chelonae*, *Escherichia coli* (including type 0157), *Enterococcus faecalis*, *Pseudomonas aeruginosa*, *Bacillus subtilis* var *niger* spores, methicillin-resistant *Staphylococcus aureus*, *Candida albicans*, poliovirus type 2 and human immunodeficiency virus HIV-1. Under clean conditions, freshly generated **Sterilox** was found to be highly active against all these micro-organisms giving a 5 log<sub>10</sub> (99.999%) or greater reduction in two minutes or less.

AN 1999:199567 CAPLUS

DN 130:242367

TI Method for sterilization with diluted electrolyzed acidic solution

IN Sato, Fumitake; Yanagihara, Noriyuki; Naito, Tatsuya

PA Mizu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NÖ.	KIND	DATE	APPLICATION NÖ.	DATE
PI	JP 11076383	A2	19990323	JP 1997-264977	19970911
PRAI	JP 1997-264977		19970911		

AB The invention provides a low cost and simplified method for sterilizing hands, medical goods, clothes, dishes, etc., with an 10-40 times dild. electrolyzed acidic soln., wherein the original electrolyzed acidic soln. has pH of .ltoreq. 2.5 and an ORP (oxidn.-redn. potential) of .gtoreq. 110 mV. A 0.1 % NaCl soln. (12 L) was electrolyzed at 20 A for 1 h, and dild. 20 times with water after adding 0.3 % HCl. The soln (pH = 2.96, ORP = 1144 mV) showed sterilizing effect against black-koji mold and bacterial spores in .ltoreq. 30 s.

AN 1997:396756 CAPLUS  
DN 127:70661  
TI Effect of functional water on infectious skin ulceration  
AU Inagawa, Kiichi; Moriguchi, Takahiko  
CS Keisei Gekagaku Kyoshitsu, Kawasaki Ika Daigaku, Kurashiki, 701-01, Japan  
SO Igaku no Ayumi (1997), 181(4), 266-267  
CODEN: IGAYAY; ISSN: 0039-2359  
PB Ishiyaku  
DT Journal; General Review  
LA Japanese  
AB A review with 3 refs., on treatment of infectious skin  
ulceration with strong acidic electrolysis soln.  
(functional water).

AN 1992-156106 [19] WPIIDS

DNC C1992-071931

TI Prodn. of sterilised water contg. hypochlorous acid - electrolysing so both solns. in anode and cathode chambers are mixed to give prod. of specified pH.

DC D15 E36 J03

PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK

CYC 1

PI JP 04094788 A 19920326 (199219)\* 4p  
JP 2892121 B2 19990517 (199925) 5p

ADT JP 04094788 A JP 1990-213279 19900810; JP 2892121 B2 JP 1990-213279 19900810

FDT JP 2892121 B2 Previous Publ. JP 04094788

PRAI JP 1990-213279 19900810

AB JP 04094788 A UPAB: 19931006

Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber, and HCl to the cathode chamber. Water in the tank is electrolysed so that pH of the electrolysed water in the anode chamber is 3-7 and that in the cathode chamber is 4-7. Both solns. formed in the anode and cathode chambers are mixed to obtain electrolysed water with pH of almost 3-7.

ADVANTAGE - Sterilised water contg. HClO having strong sterilising power at low concn. is safely and effectively produced without generating Cl<sub>2</sub>. Electric power used for the electrolysis is saved. (0/2)

0/2

AN 1992-156105 [19] WPIIDS

DNC C1992-071930

TI Prodn. of sterilised water contg. hypochlorous acid - by electrolysing water in tank to give specified pH of hypochlorous soln. in anode chamber.

DC D15 E36 J03

PA (YAWA) NIPPON STEEL CORP; (OMUK-N) OMUKO KK

CYC 1

PI JP 04094787 A 19920326 (199219)\* 9p

JP 2892120 B2 19990517 (199925) 9p

ADT JP 04094787 A JP 1990-213278 19900810; JP 2892120 B2 JP 1990-213278 19900810

FDT JP 2892120 B2 Previous Publ. JP 04094787

PRAI JP 1990-213278 19900810

AB JP 04094787 A UPAB: 19931006

Process comprises introducing raw water in an electrolysing tank which has an anode, a cathode and a diaphragm between them. Hypochlorite is added to the anode chamber and HCl into the cathode chamber. Water in the tank is electrolysed so that pH of hypochlorous aq. soln. formed in the anode chamber is 3-7.

Electrolysed water discharged from the cathode chamber is pref. fed back to the electrolysing tank through a supplying pipe to the water supplying part of the anode chamber. Water in the electrolysing tank may be electrolysed so that pH in the anode chamber is 3-7 and that in the cathode chamber is 4-12 and both solns. may be mixed to obtain electrolysed water with pH of almost 3-7.

ADVANTAGE - Sterilised water is produced in high efficiency. Electric power used for the electrolysis is saved as pH in the anode chamber is kept at 3-7 at lower electrolysing voltage. Cl<sub>2</sub> gas does not generate during the electrolysis. (0/0)

0/0

AN 1997:53208 CAPLUS  
DN 126:86972  
TI Virucidal and bactericidal effects of electrolyzed oxidizing water: comparison of disinfectant effect with electrolyzed oxidizing water and hypochlorous acid  
AU Shimizu, Yoshinobu; Sugawara, Hiroko  
CS Dep. Oral Bacteriol., Tohoku Univ. Sch. Dentistry, Sendai, 980-77, Japan  
SO Shika Kiso Igakkai Zasshi (1996), 38(5), 564-571  
CODEN: SHKKAN; ISSN: 0385-0137  
PB Shika Kiso Igakkai  
DT Journal  
LA English  
AB Electrolyzed oxidizing (EO) water, synthesized by electrolysis of tap water and NaCl (0.05%) with a diaphragm between the cathode and anode and collected from the anode side, exhibited strong virucidal and bactericidal activity. The oxidn.-redn. potential (ORP) of EO water in a pH of .1toreq.2.70 was .gtoreq.1100 mV. When NaOCl was mixed with HCl, HClO was synthesized (NaClO + HCl .fwdarw. HClO + NaCl) resulting in an ORP of .gtoreq.1100 mV at low pH. The min. microbicidal concn. (MMC) of Cl (mg/L) showing virucidal and bactericidal effects in EO water was compared with that of the synthesized HClO using herpes simplex virus type 1, poliovirus, and Enterococcus faecalis. The MMC of Cl in EO water was less than that in HClO. The virucidal and bactericidal effects of EO water differ from those of HClO only because substances contained in EO water, such as Cl-, ClO<sub>2</sub>, H<sub>2</sub>O<sub>2</sub>, OH<sup>+</sup> (hydroxyl radical), etc., seem to synergistically support such activity by balancing in a competitive state in acidic conditions.

AN 1999:162952 BIOSIS  
DN PREV199900162952  
TI Evaluation of microbicidal activity of a new disinfectant:  
    **Sterilox(R)** 2500 against Clostridium difficile spores,  
    Helicobacter pylori, vancomycin resistant Enterococcus species, Candida  
    albicans and several Mycobacterium species.  
AU Shetty, N. (1); Srinivasan, S.; Holton, J.; Ridgway, G. L.  
CS (1) Dep. Clin. Microbiol., Univ. Coll. London Hosp., Out Patient Build.,  
    III Floor, Grafton Way, London WC1E 6DB UK  
SO Journal of Hospital Infection, (Feb., 1999) Vol. 41, No. 2, pp. 101-105.  
    ISSN: 0195-6701.  
DT Article  
LA English  
AB The microbicidal activity of a new disinfectant **Sterilox(R)**, a  
    super-oxidized water containing a mixture of oxidizing substances, was  
    tested against Clostridium difficile spores, Helicobacter pylori,  
    vancomycin resistant Enterococcus species, Candida albicans and several  
    Mycobacterium species using membrane filters. All tests were performed in  
    duplicate with and without added horse serum at 1% and 5% v/v. Distilled  
    water, 0.35% peracetic acid (Nu-Cidex(R)) and 2% glutaraldehyde were  
    included as controls. **Sterilox**: spore suspension (9:1 v/v)  
    achieved log<sub>10</sub> kill of >5 with 5% horse serum in 2 min against H. pylori,  
    vancomycin resistant Enterococcus species, C. albicans and four atypical  
    Mycobacterium species: M. avium, M. chelonei, M. xenopi and M. smegmatis.  
    Sporicidal activity of **Sterilox** against Clostridium difficile  
    was markedly diminished in the presence of 5% horse serum.  
    **Sterilox** may be an effective alternative in endoscopy units, as it  
    is a potent microbicidal agent and the manufacturer claims it is not  
    corrosive to metal and is nontoxic to biological tissues.

AN 1999:126678 BIOSIS  
DN PREV199900126678  
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FILE 'CAPLUS, WPIDS, BIOSIS' ENTERED AT 17:59:16 ON 17 OCT 2003

L13 42 S AMUCHINA OR STERILOX

L14 2 S L13 AND (GEL? OR THICKENER? OR THIXOTROPI? OR GUM# OR OXIDATI

L15 40 S L13 NOT L14

FILE 'STNGUIDE' ENTERED AT 18:29:30 ON 17 OCT 2003

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L14 2 SEA L13 AND (GEL? OR THICKENER? OR THIXOTROPI? OR GUM# OR  
OXIDATION POTENTIAL OR ORP OR PH)

L15 40 SEA L13 NOT L14

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